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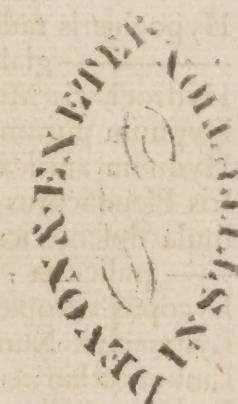


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Vol. 1-2 n. 6
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I N D E X . I.

In which the Plants contained in the third Fasciculus, are arranged according to the System of LINNÆUS.

<i>Latin Name.</i>	<i>Class and Order.</i>
1 <i>Veronica officinalis</i>	DIAANDRIA Monogynia.
2 <i>Lycopus europaeus</i>	
3 <i>Circæa lutetiana</i>	TRIANDRIA Monogynia.
4 <i>Iris Pseudacorus</i>	
5 <i>Avena flaveolens</i>	TRIANDRIA Digynia.
6 —— elatior	
7 <i>Aira præcox</i>	TRIANDRIA Trigynia.
8 <i>Montia fontana</i>	
9 <i>Dipsacus sylvestris</i>	TETRANDRIA Monogynia.
10 <i>Scabiosa Succisa</i>	
11 <i>Centunculus minimus</i>	TETRANDRIA Tetragynia.
12 <i>Sagina procumbens</i>	
13 <i>Myosotis scorpioides palustris</i>	PENTANDRIA Monogynia.
14 <i>Lysimachia Nummularia</i>	
15 <i>Anagallis tenella</i>	PENTANDRIA Digynia.
16 <i>Vinca minor</i>	
17 <i>Chenopodium Bonus Henricus</i>	PENTANDRIA Trigynia.
18 <i>Sambucus Ebulus</i>	
19 <i>Linum catharticum</i>	PENTANDRIA Pentagynia.
20 <i>Fritillaria Meleagris</i>	
21 <i>Rumex acutus</i>	HEXANDRIA Monogynia.
22 —— obtusifolius	
23 —— maritimus	HEXANDRIA Trigynia.
24 <i>Epilobium montanum</i>	
25 <i>Sedum Telephium</i>	OCTANDRIA Monogynia.
26 —— dasypodium	
27 <i>Agrostemma Githago</i>	DECANDRIA Pentagynia.
28 <i>Lythrum Salicaria</i>	
29 <i>Sempervivum tectorum</i>	DODECANDRIA Monogynia.
30 <i>Fragaria sterilis</i>	
31 <i>Potentilla Anserina</i>	DODECANDRIA Dodecagynia.
32 <i>Papaver Rhœas</i>	
33 <i>Betonica officinalis</i>	ICOSANDRIA Polygynia.
34 <i>Stachys sylvatica</i>	
35 —— palustris	POLYANDRIA Monogynia.
36 <i>Scutellaria galericulata</i>	
37 <i>Antirrhinum spurium</i>	DIDYNAMIA Gymnospermia.
38 <i>Brassica muralis</i>	
39 <i>Cardamine amara</i>	DIDYNAMIA Angiospermia.
40 —— pratensis	
41 <i>Sisymbrium sylvestre</i>	TETRADYNAMIA Siliquosa.
42 <i>Geranium pyrenaicum</i>	
43 <i>Malva rotundifolia</i>	MONADELPHIA Decandria.
44 <i>Lathyrus pratensis</i>	
45 <i>Trifolium agrarium</i>	MONADELPHIA Polyandria.
46 —— repens	
47 <i>Medicago arabica</i>	DIADELPHIA Decandria.
48 <i>Hypericum Androsænum</i>	
49 —— hirsutum	POLYADELPHIA Polyandria.
50 —— humifusum	
51 <i>Picris echioides</i>	SYNGENESIA Polygamia æqualis.
52 <i>Hypochæris radicata</i>	
53 —— glabra	SYNGENESIA Polygamia superflua.
54 <i>Carduus Marianus</i>	
55 <i>Bidens cernua</i>	SYNGENESIA Monogamia.
56 <i>Inula dysenterica</i>	
57 —— pulicaria	GYNANDRIA Diandria.
58 <i>Viola palustris</i>	
59 <i>Orchis Morio</i>	MONOECIA Polyandria.
60 <i>Ophrys ovata</i>	
61 <i>Typha latifolia</i>	MONOECIA Triandria.
62 —— angustifolia	
63 <i>Carex pendula</i>	DIOECIA Monadelphia.
64 <i>Hydrocharis Morsus Ranæ</i>	
65 <i>Hypnum purum</i>	CRYPTOGAMIA Musci.
66 <i>Bryum subulatum</i>	
67 <i>Bryum argenteum</i>	CRYPTOGAMIA Fungi.
68 —— cespitosum	
69 <i>Hydnus auriscalpium</i>	
70 <i>Agaricus glutinosus</i>	
71 —— plicatilis	
72 —— ostreatus	
73 <i>Phallus impudicus</i>	





I N D E X II.

In which the Latin Names of the Plants
are arranged Alphabetically.

	<i>Plate.</i>
<i>Avena flavescens</i>	5
— <i>elatior</i>	6
<i>Aira præcox</i>	7
<i>Anagallis tenella</i>	15
<i>Agrostemma Githago</i>	27
<i>Antirrhinum spurium</i>	37
<i>Agaricus glutinosus</i>	69
— <i>plicatilis</i>	70
— <i>ostreatus</i>	71
<i>Betonica officinalis</i>	33
<i>Brassica muralis</i>	38
<i>Bidens cernua</i>	55
<i>Bryum subulatum</i>	66
— <i>argenteum</i>	67
— <i>celpititium</i>	67
<i>Circæa lutetiana</i>	3
<i>Centunculus minimus</i>	11
<i>Chenopodium Bonus Henricus</i>	17
<i>Cardamine amara</i>	39
— <i>pratinis</i>	40
<i>Carduus marianus</i>	54
<i>Carex pendula</i>	63
<i>Dipsacus sylvestris</i>	9
<i>Epilobium montanum</i>	24
<i>Fritillaria Meleagris</i>	20
<i>Fragaria sterilis</i>	30
<i>Geranium pyrenaicum</i>	42
<i>Hypericum Androsænum</i>	48
— <i>hirsutum</i>	49
— <i>humifusum</i>	50
<i>Hypochaeris radicata</i>	52
— <i>glabra</i>	53
<i>Hydrocharis Morsus Ranæ</i>	64
<i>Hypnum purum</i>	65
<i>Hydnnum auriscalpium</i>	68
<i>Iris Pseudacorus</i>	4
<i>Inula dysenterica</i>	56
— <i>pulicaria</i>	57
<i>Lycopus europæus</i>	57
<i>Lysimachia Nummularia</i>	2
<i>Linum catharticum</i>	14
<i>Lythrum Salicaria</i>	19
<i>Lathyrus pratensis</i>	44
<i>Montia fontana</i>	8
<i>Myosotis scorpioides</i>	13
<i>Malva rotundifolia</i>	43
<i>Medicago arabica</i>	47
<i>Orchis morio</i>	59
<i>Ophrys ovata</i>	60
<i>Potentilla Anserina</i>	31
<i>Papaver Rhœas</i>	32
<i>Picris echioides</i>	51
<i>Phallus impudicus</i>	72
<i>Rumex acutus</i>	21
— <i>obtusifolius</i>	22
— <i>maritimus</i>	23
<i>Scabiosa Succisa</i>	10
<i>Sagina procumbens</i>	12
<i>Sambucus Ebulus</i>	18
<i>Sedum Telephium</i>	25
— <i>dasyphyllum</i>	26
<i>Sempervivum tectorum</i>	29
<i>Stachys sylvatica</i>	34
— <i>palustris</i>	35
<i>Scutellaria galericulata</i>	36
<i>Sisymbrium sylvestre</i>	41
<i>Trifolium agrarium</i>	45
— <i>repens</i>	46
<i>Typha latifolia</i>	61
— <i>angustifolia</i>	62
<i>Veronica officinalis</i>	1
<i>Vinca minor</i>	16
<i>Viola palustris</i>	58

I N D E X III.

In which the English Names of the Plants
are arranged Alphabetically.

	<i>Plate.</i>
All-heal	35
Betony wood	33
Bryum awl-shaped	66
— silvery	67
— matted	67
Blinks	8
Cockle	27
Carex pendulous	63
Crane's bill mountain	42
Claver	47
Clover Dutch	46
Cat's-tail broad-leaved	61
— narrow-leaved	62
Dock sharp-pointed	21
— broad-leaved	22
— narrow-leaved	23
Devil's bit	10
Enchanters-Nightshade common	3
Elder dwarf	18
Flax purging	19
Fluellin round-leaved	37
Fritillary common	20
Frog-bit	64
Flax yellow	4
Fleabane common	56
— small	57
Good Henry	17
Hawkweed long-rooted	52
— small-flowered	53
Hypnum meadow	65
Hydnum ear-picker	68
Houseleek	29
Hair-grass early	7
Hemp-agrimony nodding	55
Hooded Willow-Herb common	36
Ladies-Smock common	39
— bitter	40
Loosestrife purple-spiked	28
Mushroom flimy	69
— plaited	70
— oyster	71
Moneywort	14
Moufear-Scorpion-Grafs	13
Mallow round-leaved	43
Morell stinking	72
Nettle-Hedge	34
Orpine	25
Oat-Grafs yellow	5
— tall	6
Orchis meadow	59
Ox-Tongue	51
Pimpernel Bog	15
Pimpernel-Bastard	11
Poppy smooth-round-headed	32
Pearlwort procumbent	12
Periwinkle small	16
Rocket stinking	38
— water	41
Strawberry barren	30
St. John's Wort hairy	49
— trailing	50
Silver-Weed	31
Stonecrop thick-leaved	26
Speedwell male	1
Trefoil hop	45
Twayblade	60
Thistle milk	54
Teasel wild	54
Tutsan	9
Vetchling yellow	48
Violet bog	44
Willow-Herb wood	58
Water-Horehound	24
	2





Veronica officinalis.

VERONICA OFFICINALIS. MALE SPEEDWELL.

VERONICA Lin. Gen. Pl. DIANDRIA MONOGYNIA.

Cor. Limbo 4. partito, laciniâ infima angustiore. *Capula bilocularis*.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.
VERONICA officinalis spicis lateralibus pedunculatis, foliis oppositis, caule procumbente. Lin. Syt.

Vegetab. p. 56. Sp. Pl. 14. Fl. Suec. n. 12.

VERONICA caule decumbente, foliis scabris, petiolatis, ovatis, ex alis racemosa. Haller hist. n. 540.

VERONICA officinalis. Scopoli. Fl. Carn. n. 21.

VERONICA mas supina et vulgatissima. Bauh. Pin. 246.

VERONICA vera et major. Ger. emac. 626.

VERONICA mas vulgaris supina. Parkins. 550. Raii Syn. p. 281. The Male Speedwell or Fluellin.

Hudson Fl. Angl. ed. 2. p. 4.

Lightfoot Fl. Scot. p. 27.

Oeder Fl. Dan. t. 248.

RADIX perennis, fibroso.

CAULES palmares seu spithamæi, teretes, hirsuti, rigiduli, repentes.

FOLIA opposita, petiolata, presertim inferiora, hirsutula, serrata, pollicaria, inferiora, basi angustata, superiora ovali-oblonga, obtusa, paulo majora, subsessilia.

RACEMI solitarii, five gemini, in summitate laterales, axillares ex foliis, pedunculati, erecti, nudi, pubescentes, floribus sparsis, brevius pedicellatis.

BRACTEÆ ad flores, solitariæ, lineares, obtusæ, pubescentes, longitudine vix calycis, erectæ.

CALYX : PERANTHUM monophyllum, quadripartitum, hirsutum, pilis apice glanduligeris, lacinias ovato lanceolatis subæqualibus, fig. 1.

COROLLA monopetala, rotata; *Tubus* brevis, albido, *Limbus* quadripartitus, dilute violaceus, venis saturationibus pictus, lacinias ovatis, obtusis, inæqualibus; tribus majoribus subæqualibus, unica duplo angustiore, fig. 2.

STAMINA : FILAMENTA duo, albida, tubo inserta, corollâ longiora; ANTHÈRÆ cordatae, cœrulecentes; POLLEN album, fig. 3.

PISTILLUM : GERMEN subovatum, obtusum, compressum, viscosum, utrinque sulcatum, basi glandulâ cinctum; STYLUS filiformis, versus apicem paululum incrassatus, violaceus; STIGMA truncatum, fig. 4.

PERICARPIUM : *Capula* cordata, compressa, calyce paulo longior, fig. 5.

SEMINA plurima, parva, compressa, pallide fusca, fig. 6.

ROOT perennial and fibrous.

STALKS from three to seven inches in length, round, hirsute, stiffish, and creeping.

LEAVES opposite, standing on footstalks, especially the lower ones, somewhat hairy, serrated, about an inch in length, the lower ones narrowed at the base, the upper ones of an oblong or oval shape, obtuse, somewhat larger than the lower ones and nearly sessile.

FLOWER-BRANCHES single, or growing in pairs, from the side near the top of the stalk, out of the alæ of the leaves, standing on a foot-stalk, upright, naked, downy, the flowers placed on short foot-stalks without any regular order.

FLORAL-LEAF, one placed singly under each flower, linear, obtuse, downy, scarce the length of the calyx, and upright.

CALYX : a PERANTHUM of one leaf, deeply divided into four segments, beset with rough hairs which are glandular at the top, the segments oval pointed, and nearly equal, fig. 1.

COROLLA monopetalous and wheel-shaped; the Tube short and whitish; the Limb divided into four segments, of a faint violet colour, painted with more deeply coloured veins, the segments ovate, obtuse, and unequal; the three largest nearly equal; the single one twice as narrow as the others, fig. 2.

STAMINA : two FILAMENTS, of a whitish colour, inserted into the tube, and longer than the corolla; ANTHÈRÆ heart-shaped, of a bluish colour; POLLEN white, fig. 3.

PISTILLUM : GERMEN somewhat ovate, obtuse, flattened, clammy, grooved on each side, surrounded at its base by a gland; STYLE thread-shaped, a little thickened towards the top, of a violet colour; STIGMA as if cut off, fig. 4.

SEED-VESSEL : a heart shaped flattened *Capula*, a little longer than the calyx, fig. 5.

SEEDS numerous, small, flattened, of a pale brown colour, fig. 6.

On dry mountainous situations, as on Hampstead Heath, and about Charlton Wood, we find this species of *Veronica* in great abundance, producing flowers from June to August, or later.

Its principal distinguishing character is its creeping stalk, which in some situations is more strictly so than in others, I have observed it on some dry heaths, creeping close to the earth, and in other places scarcely procumbent, but it always has this character in a greater or less degree.

In the colour of its blossoms it varies much, they being in some situations almost blue, in others reddish, and in others white; and it is said to have been found with double flowers.

When it meets with a luxuriant soil, its stalks will extend a foot or two, and its leaves equal those of the *Veronica Chamædrys* in size.

Many writers on the Materia Medica have been lavish of their encomiums on its virtues. RUTTY thus speaks of it.

" It has a faint smell which is not disagreeable, to the taste it is bitterish and somewhat astringent; the extract of it was also bitter and astringent, but that prepared with spirit of wine stronger than that prepared with water, and both somewhat acrid, the bitterness resides most in the resinous part.

" An infusion of it on the addition of vitriol of iron became of a greenish brown colour, and with ALSTON black; blue paper it made red.

" In its external use the cleansing and astringent powers which it possesses, place it among the principal vulneraries, bad ulcers it cleanses, and disposes them to heal; I have myself been witness of its efficacy in this respect, applied to an inveterate cancerous ulcer in the form of a cataplasm, from discharging a thin ichor, it produced a laudable pus.

" It has been found serviceable also in the itch, and other cutaneous diseases; made into a gargle with the addition of honey of roses, it cures the thrush, and other ulcers of the mouth and throat.

" Taken inwardly it relieves the asthmatic, attenuating and promoting the expectoration of viscid phlegm, and drank as tea; it also proves serviceable in wounds or ulcers of the lungs, &c. &c.

These good effects, related with so much confidence by the Doctor, we have translated, and present to our readers, should they not be exaggerated the *Veronica officinalis* has very unmeritedly fallen into disuse.

LYCOPUS EUROPÆUS. WATER HOREHOUND.

LYCOPUS. Linn. Gen. Pl. DIANDRIA MONOGYNIA.

Cor. 4. fida: lacinia unica emarginata. Stamina distantia, Semina 4. retusa.

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

LYCOPUS europæus foliis sinuato-serratis. Linn. Syt. Veg. p. 63. Sp. Pl. p. 30. Fl. Suec. n. 31.

LYCOPUS foliis acute serratis et appendiculatis. Haller Hist. 220.

LYCOPUS europæus. Scopoli Fl. Carn. n. 29.

LYCOPUS palustris glaber. J. R. H. 191.

MARRUBIUM palustre glabrum. Bauh. p. 230.

MARRUBIUM aquaticum. Ger. emac. 700.

MARRUBIUM aquaticum vulgare. Parkin. 1230. Raii Syn. p. 236. Water Horehound.

Hudson Fl. Angl. ed. 2.

Lightfoot Fl. Scot.

RADIX perennis, repens.

CAULIS pedalis, ad tripedalem, erectus, quadratus, hirsutus, ad basin usque ramosus; Rami oppositi.

FOLIA opposita, ovata, acuta, sessilia, subrugosa, hirsutula, sinuato-serrata.

FLORES parvi, albi, ad genicula in verticilos densos dispositi.

CALYX: PERANTHİUM monophyllum, tubulatum, semiquinefidum, hirsutum, laciniis acuminatis, fig. 1.

COROLLA monopetala, alba, *Tubus* cylindraceus, brevis, *Limbus* quadrifidus, villosus, laciniis subæqualibus, superiore emarginatâ, omnibus præfertim inferiore rubro punctatis, fig. 2. 3.

STAMINA: FILAMENTA duo, corollâ longiora, primum inflexa, demum recta; ANTHERÆ parvæ, sublunulatæ, albidæ, fig. 4.

PISTILLUM: GERMEN quadrifidum, substantiâ glandulosâ ad basin cinctum; STYLUS filiformis, rectus, longitudine Staminum; STIGMA bifidum, fig. 5.

SEMINA quatuor, fig. 9. fusca, nitida, oleo quasi illinita, subtriangularia, externe planiuscula, lineâ, subcordata, in medio impressâ, interne medio ad angulum producto, lateribus subinvolutis, fig. 6. externe; fig. 7. interne visum.

ROOT perennial and creeping.

STALKS from one to three feet in height, upright, four cornered, beset with rough hairs, branched quite to the bottom; Branches opposite.

LEAVES opposite, ovate, pointed, sessile, somewhat wrinkled, slightly hirsute, sawed at the edge, the incisions deep and somewhat waved.

FLOWERS small, and white, disposed round the joints in thick whorls.

CALYX: a PERIANTHIUM of one leaf, tubular, and hirsute, slightly divided into five segments, which run out to a fine point, fig. 1.

COROLLA monopetalous and white, *Tube* cylindrical, short, *Limb* divided into four segments, blunt, spreading, villous within, the segments nearly equal, the uppermost notched, all of them, especially the lower one, dotted with red, fig. 2, 3.

STAMINA: two Filaments, longer than the corolla, at first bent in, afterwards straight; ANTHERÆ small, somewhat crescent-like and whitish, fig. 4.

PISTILLUM: GERMEN divided into four parts, surrounded at bottom by a glandular substance; STYLE filiform, straight, the length of the Stamina; STIGMA bifid, fig. 5.

SEEDS four, fig. 9. brown, shining as if anointed with oil, somewhat triangular, externally flattish, with an impressed somewhat heart-shaped line in the middle, internally the middle running out to a point or angle, the sides somewhat rolled in, fig. 6. seen externally; fig. 7. internally.

This is one of the most common plants one meets with in meadows, by the sides of rivers, and streams of water, it flowers in August and September.

In its habit it manifests the greatest affinity with the *Herbæ verticillatæ* of RAY, but like the genus *Salvia*, differs from them in its fructification.

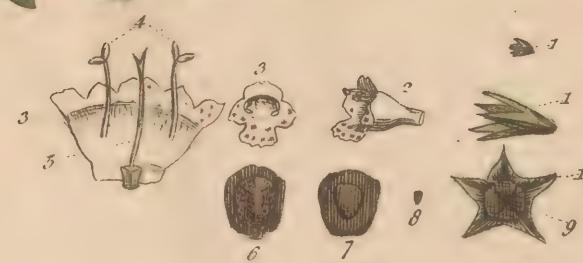
The leaves vary in being more or less hairy, and more or less finely divided.

In some meadows it abounds so much as to be noxious to the Farmer; cattle appear never to touch it; its root being of the creeping kind, renders it difficult of extirpation.

It is said to give a durable stain to whatever it touches; to be used by the French as an assistant ingredient in dying black, and by Gypsies in staining their skins. Linn. Fl. Suec. Haller Hist. helv.



Lycopus europaeus.





Circaea lutetiana.

CIRCÆA LUTETIANA. ENCHANTERS NIGHTSHADE.

CIRCÆA. *Linn. Gen. Pl. DIANDRIA MONOGYNIA.*

Cor. dipetala. Cal. diphyllo, superus. Sem. 1. biloculare.

Raii Syn. Gen. 19, 20. HERBÆ VASCULIFERÆ, FLORE DIPETALO ET TRIPETALO.

CIRCÆA *lutetiana*, caule erecto, racemis pluribus, foliis ovatis. *Linn. Syst. Vegetab. p. 55.*
Sp. Pl. p. 12. Fl. Suecic. n. 6.

CIRCÆA foliis subcordatis subserratis. *Haller Hist. n. 813.*

CIRCÆA *lutetiana*. *Scopoli Fl. Carn. n. 6.*

CIRCÆA *lutetiana*. *Lob. ic. 266. Ger. emac. 351.*

CIRCÆA *lutetiana major*. *Park. 351.*

SOLANIFOLIA *Circæa dicta major*. *Bauh. Pin. 168.*

OCYMASTRUM *verrucarium*. *J. B. 11. 977. Raii Syn. p. 289. Enchanters Nightshade.*

Oeder. Fl. Dan. t. 256.

Lightfoot Fl. Scot. p. 20.

Hudson Fl. Angl. p. 10.

RADIX perennis, repens, stolonibus albis.

CAULIS pedalis ad fesquipedalem, suberectus, teres, lœvis, geniculis incrassatis, purpurascenscentibus, ramosus.

RAMI oppositi, longi, inferne foliosi, superne pubescentes.

FOLIA opposita, petiolata, subcordata, acuta, lœvia, inferne pallidiora, margine dentata.

FLORES parvi, albidi, summitatibus ramulorum raccematis insidentes.

PEDUNCULI alterni, demum deflexi.

CALYX: PERIANTHUM diphylum, foliolis ovatis, concavis, deflexis, purpureis, pedunculo communi insidentibus, fig. 1, 9.

COROLLA: PETALA duo, obcordata, longitudine calycis, patentia, æqualia, carnea, sessilia, fig. 2.

STAMINA: FILAMENTA duo, capillaria, erecta, alba; ANTERÆ subrotundæ, majusculæ, albidæ, fig. 3.

PISTILLUM: GERMEN inferum, hispidum; STYLUS filiformis, longitudine Staminum; STIGMA bifidum, ruberrimum, fig. 4, 8.

PERICARPIUM: CAPSULA turbinato-ovato, compressa, hispida, pilis uncinatis, bilocularis, bivalvis, a basi ad apicem dehiscens, fig. 5, 6.

SEMINA duo, oblonga, inferne angustiora, fig. 7.

ROOT perennial and creeping, its young shoots white.

STALKS from a foot to a foot and a half in height, nearly upright, round, smooth, the joints swelled and purplish, branched.

BRANCHES opposite, long, on the lower part leafy, on the upper downy.

LEAVES opposite, standing on foot-stalks, somewhat heart-shaped, pointed, smooth, of a paler green on the under side, the edge toothed.

FLOWERS small, whitish, placed on the tops of the branches in racemi.

FLOWER-STALKS alternate, finally turned downwards.

CALYX: a PERIANTHUM of two leaves, which are ovate, hollow, turned back, of a purple colour, fitting on one common foot-stalk, fig. 1, 9.

COROLLA: two PETALS inversely heart-shaped, the length of the calyx, spreading, equal, flesh-coloured and sessile, fig. 2.

STAMINA: two FILAMENTS, very fine, upright, of a white colour; ANTERÆ roundish, rather large, of a whitish colour, fig. 3.

PISTILLUM: GERMEN placed below the calyx, hispid and grey; STYLE filiform, the length of the Stamina; STIGMA bifid, of a bright red colour, fig. 4, 8.

SEED-VESSEL: a CAPSULE somewhat egg-shaped, but considerably broadest at one end, flattened, hispid, the hairs hooked at the extremity, having two cavities and two valves, and opening from the bottom to the top, fig. 5, 6.

SEEDS two, oblong, narrowst at the bottom, fig. 7.

The *Enchanters Nightshade* is a plant by no means uncommon in particular situations, as in shady lanes, in orchards, under hedges, walls, and in woods; it flowers in July and in August; the Botanist will discover many beauties in its fructification; the Gardener finds a difficulty in destroying it, its root being of the creeping kind.

Its seeds being armed with little hooks are apt to adhere to ones clothes.

The caterpillar of the *Sphinx Elpenor* or *Elephant Hawk Moth*, which chiefly confines itself to the *Galium palustre* or *marsh Ladies Bedstraw*, has sometimes been found feeding on this plant, nor is this the only instance of its departure from its usual food; in the Autumn of seventy-nine the same species of caterpillar was sent me from the country, the plant on which it was there found was the *Arum Dracunculus* or *Dragons*, one very dissimilar in its nature to the *Galium*; I have often had occasion to observe that some caterpillars will perish unless they have their peculiar food, while others will devour any vegetable that presents itself; who would think that the *Phalæna Brassicæ*, would feed heartily, and be nourished by the leaves of the deadly *Nightshade*, or the roots of the *Onion*? yet I have myself been an eye witness to both instances.

I R I S P S E U D A C O R U S . Y E L L O W I R I S .

IRIS. *Linn. Gen. Pl.* TRIANDRIA MONOGYNIA.

Cor. Limbo 4. partito. Petalis alternis reflexis. Stigmata petaliformia.

Raii Syn. Gen. 26. HERBÆ RADICE BULBOSA PREDITÆ.

IRIS *Pseudacorus* corollis imberibus, petalis interioribus stigmate minoribus, foliis ensiformibus.

Linn. Syst. Veg. p. 79. Sp. Pl. p. 56. Fl. Suec. n. 37.

IRIS caule inflexo, foliis ensiformibus; petalis erectis, minimis, reflexis, imberibus. *Hall. Hist. n. 1260.*

IRIS *Pseudacorus*. *Scopoli Fl. Carn. n. 49.*

IRIS palustris lutea. *Ger. emac. 50.*

ACORUS adulterinus. *Bauh. Pin. 74.*

ACORUS palustris, sive Pseudo-Iris et Iris lutea palustris. *Park. 1219. Raii Syn. p. 174. Yellow Water Flower-de-Luce.*

Hudson Fl. Angl. ed. 2. p. 14. Lightfoot Fl. Scot. p. 86. Æder Fl. Dan. t. 404.

RADIX perennis, crassitie pollicis, horizontalis, foris nigricans, intus rubicundus, spongiosus, superne plurimis fibrillis rigidis obtecta, inferne dimittens radiculas longas, albidas, rugosas.

FOLIA radicalia, bi aut tripedalia, erecta, lata, ensiformia, nervo eminente, basi equitantia, caulina breviora, alterna, basi vaginantia.

CAULIS pedalis ad tripedalem, erectus, e geniculo ad geniculum alterne inclinatus, teres, laevis, spongiosus.

FLORES erecti, speciosi, flavi.

PEDUNCULI axillares, semiteretes, glabri.

CALYX: SPATHA biflora aut triflora, bivalvis, trivalvis aut quadrivalvis secundum numerum florum.

COROLLA sexpartita; PETALA tria exteriora ampla, ovato rotundata, reflexa, lineis rubris seu ex rubro-fuscis ad basin laminæ picta, ad basin unguis biforaminosa, tria interiora primo erecta, cito inflexa, stigmate breviora, oblonga, basi angustata, intus cava, fig. 1, 2.

STAMINA: FILAMENTA tria, subulata, compressa; ANTHERÆ oblongæ, luteæ, marginibus purpurascensibus, ab incumbente stigmate in arcum depresso, bilocularis, loculæ lineares, inferne dehiscentes, fig. 3.

PISTILLUM: GERMEN inferum, oblongum, trigonum, angulis obtusis sulcatis; STYLUS tenuis, germine brevior; STIGMA maximum, tripartitum, flavum, laciniis oblongis, superne carinatis, inferne concavis apice trifidis, venosus, ferrulatis, segmento medio brevissimo, infero, fig. 4, 5, 6.

PERICARPIUM: CAPSULA oblonga, angulata, trilocularis, trivalvis, fig. 7.

SEMINA plurima, magna, flavescens, utrinque compressa, fig. 8.

Many of the plants of this tribe recommend themselves to our notice by the beauty and delicacy of their blossoms, some by their medicinal, and others by their economical uses; the present plant may perhaps put in its claim on each of these accounts, and though its flowers may not possess the fragrance so grateful in the *Iris Persica*, the magnificence which astonishes in the *susiana*, or the variety of colours which glow in the *versicolor*, yet those who have examined its structure must allow it to be at once beautiful, delicate, and singularly curious; the Stigma in particular deserves to be noticed by the student, being in form and substance more like the Petals than the part it really is.

As to its medicinal powers—The root is without smell, viscid, and of a sweetish taste, its infusion and decoction at first very sweet, then highly astringent, presently producing a sense of heat in the throat, which continued with me for more than twelve hours, *Rutty's Mat. Med.*

An infusion of it became black on the addition of Vitriol of iron. *Id.*

In drying it loses much of its acrimony. *Id.*

Cut into the form of peas it is useful to destroy the proud flesh in issues, and promotes their discharge. *Id.*

The juice has been used to promote sneezing, but being highly acrimonious of itself, a few drops of it mixed with milk has been used to produce that effect in the tooth-ach. *Id.*

The juice of the root has also been recommended to be applied to creeping ulcers, and being considered as possessing considerable astringent powers, it has been administered in fluxes, but very injudiciously, according to some modern experiments made with it (*vid. Edinburg Med. Essays*) by which it was found that eighty drops of this juice repeated every hour or two, proved an excellent purgative where Jalap and Gamboge had in vain been exhibited. On the whole it appears to be a violent medicine, and to be used with great caution. The only account we have of its economical uses is, that an infusion or decoction of it like that of galls and other vegetable astringents is capable with the addition of iron of being converted into ink, or of dying black, to both of which purposes it has long been applied in Scotland and the adjacent Isles. *Sibbald. Lightfoot.*

It is a very common plant in marshy meadows, by the sides of rivers, ponds, &c. and flowers in the beginning of July.

Planted in the garden where the soil is moist, it increases exceedingly both by root and seeds.

ROOT perennial, the thickness of ones thumb, horizontal, externally blackish, reddish within, and spongy, the upper part covered with numerous rigid fibres, its lower part sending down many long, whitish, wrinkled, stringy roots.

LEAVES from the root, two or three feet high, upright, broad, sword-shaped, with a prominent midrib, at bottom riding one on another and covered with a glutinous substance, those on the stalk shorter, alternate, forming a sheath at the bottom.

STALKS from one to three feet in height, upright, alternately inclined from joint to joint, round, smooth, and spongy.

FLOWERS upright, showy, of a yellow colour.

FLOWER-STALKS proceeding from the alæ of the leaves, round, but flattened on one side and smooth.

CALYX: a SPATHA containing two or three flowers, of two, three, or four valves according to the number of flowers.

COROLLA deeply divided into six segments: the three outermost segments or PETALS large, of a roundish oval shape, turning back, painted at the base of the broad part with lines of a reddish brown colour, and at the bottom of the claw or narrow part having the appearance of two small holes, fig. 1, 2.

STAMINA: three FILAMENTS flat and tapering; ANTHERÆ oblong, yellow, edges purplish, bent down by the stigma pressing on them, having two cavities which are linear and open on the under side, fig. 3.

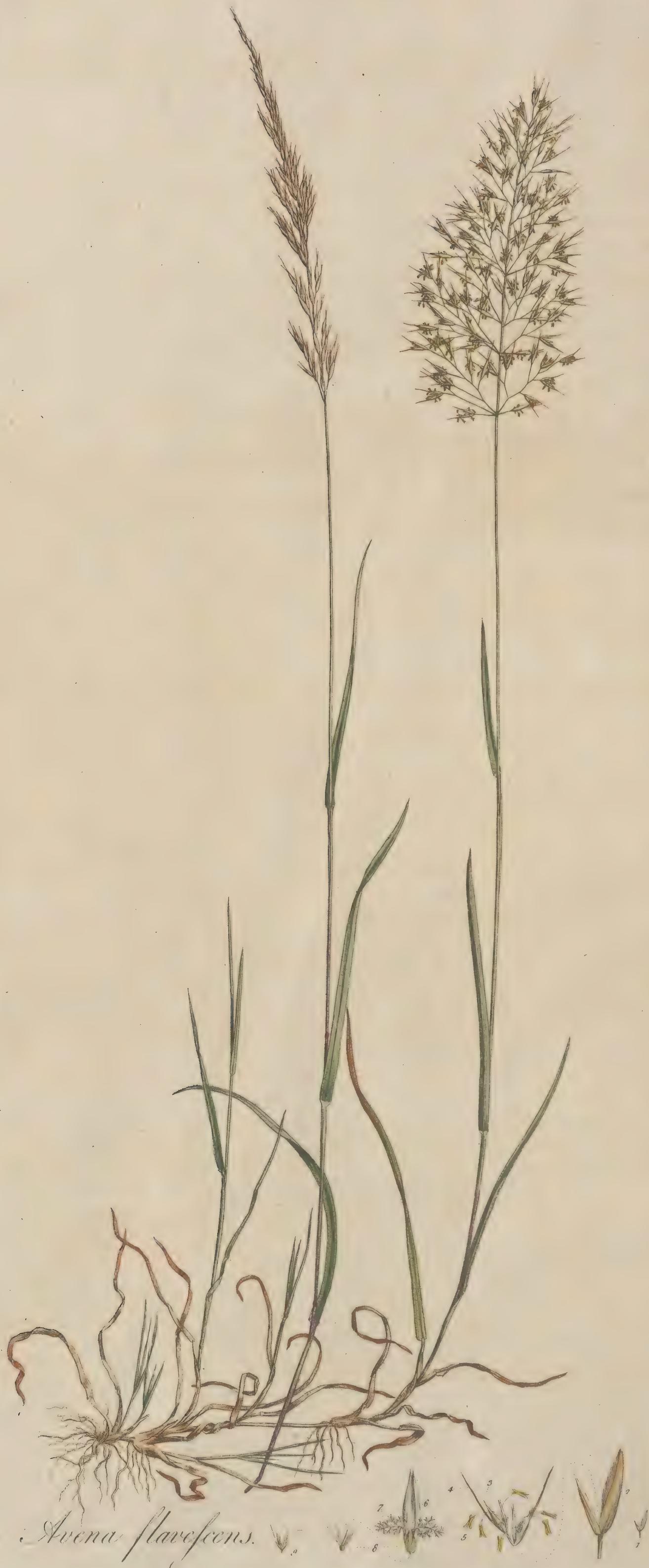
PISTILLUM: GERMEN placed below the corolla, three corner'd, the angles blunt and grooved; STYLE slender, shorter than the stigma; STIGMA very large, deeply divided into three segments, of a yellow colour, the segments oblong, above keel-shaped, below concave, at the top veiny, sawed at the edge and subdivided into three segments, of which the middle one is very short and placed underneath, fig. 4, 5, 6.

SEED-VESSEL: an oblong, angular CAPSULE, of three cavities and three valves, fig. 7.

SEEDS numerous, large, of a yellowish colour, and flattened on both sides, fig. 8.



Iris Pseudacorus.



AVENA FLAVESCENS. YELLOW OAT GRASS.

AVENA Lin. Gen. Pl. TRIANDRIA DIGYNIA.

Cal. 2-valvis, multiflorus: arista dorsali contortâ.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AVENA *flavescens* panicula laxa, calycibus trifloris brevibus, flosculis omnibus aristatis. Lin. Syft. Vegetab. p. 105. Sp. Pl. 118. Fl. Suec.. p. 103.

AVENA triantha, locustis teretibus, calycina gluma altera minima, petiolo villoso. Haller. Hist. p. 1497.

GRAMEN avenaceum pratense elatius, panicula flavescente, locustis parvis. Raii Syn. p. 407.

GRAMEN avenaceum, spica parva flavescente, locustis parvis. Moris. Hist. 3. p. 215. f. 8. t. 7. fig. 42. Scheuch. Agrost. p. 223. t. 4. f. 18.

Hudson. Fl. Engl. ed. 2. p. 53.

Lightfoot Fl. Scot. p. 106.

Schreber. Gram. tab. 9.

RADIX perennis, culta manifeste repens.

CULMUS pedalis ad bipedalem, erectus, teres, tribus aut quatuor geniculis purpurascens in strictus, hirsutulus.

FOLIA plana, ad duas lineas lata, unâ cum vaginâ quæ striata est pilis modice longis hirsutula.

PANICULA triuncialis et ultra, dum florent spiculæ quam maxime diffusa, e flavo virescens, erecta; postea coarctata, subsecunda, e flavo-fusca, splendens.

SPICULÆ parvæ, bifloræ, etiam trifloræ et quadrifloræ, flosculis omnibus aristatis. fig. 3. 4. 9.

CALYX: *Gluma bivalvis*, valvulis inæqualibus, submembranaceis, acuminatis, alterâ majori. fig. 1. 2.

COROLLA: *Gluma bivalvis*, valvulis inæqualibus, alterâ minore subdiaphanâ, membranacea, penitus alba, apice bifida, altera majori tribus aut quatuor nervis viridibus insignita, concava, bifida, aristata. fig. 3. 6.

NECTARIUM: *Glumulæ* duæ longitudine germinis, apice laciniatæ. fig. 8.

ARISTA ex dorso circa medium valvulæ majoris erumpit, in vivâ planta recta, valvulâ duplo fere longior, in siccâ recurva. fig. 4. 9.

STAMINA: FILAMENTA tria, capillaria, longitudine florum, ANTHERÆ flavæ, bifurcatæ. fig. 5.

PISTILLUM: GERMEN ovale, nudum; STYLI duo, ramosissimi, ex apice germinis, deflexi. fig. 7.

SEmen oblongum, acuminatum, nudum, valvulâ majori inclusum

ROOT perennial, when cultivated manifestly creeping. STALK from one to two feet high, upright, round, furnished with three or four purplish joints, and covered with numerous short hairs.

LEAVES flat, rarely exceeding two lines in breadth, together with the sheath which is finely grooved covered with hairs of a moderate length.

PANICLE three inches and more in length, while the spiculæ flower spreading as wide as possible, of a yellowish green colour and upright; afterwards closing together, with the spiculæ mostly one way, and becoming of a yellowish brown colour and shining.

SPICULÆ small, containing two, three, or four flowers, all of which have awns. fig. 3. 4. 9.

CALYX. A glume of two valves which are unequal, somewhat membranous, pointed, one larger than the other. fig. 1. 2.

COROLLA. A glume of two valves which are unequal, the least somewhat transparent, membranous, white, and bifid, the largest marked with three or four green nerves, hollow, bifid, and furnished with an awn. fig. 3. 6.

NECTARY: two small Glumes, the length of the germen, jagged at top. fig. 8.

AWN springing from about the middle of the back of the larger valve, in the living plant strait, almost twice the length of the valve, in the dried one crooked back. fig. 4. 9.

STAMINA: three FILAMENTS very fine, the length of the flowers; ANTHERÆ yellow, forked at both ends. fig. 5.

PISTILLUM: GERMEN oval, naked: STYLES two, very much branched, growing from the top of the germen, and hanging down. fig. 7.

SEED oblong, pointed, naked, inclosed in the larger valve.

The term *flavescens* has with propriety been given to this species of *Avena*, as its panicle, especially on closing after it has flowered, is of a yellower hue than any of the others, and this is one character which may serve to distinguish it; added to this it is one of the least of the genus, its panicle is finely divided, its spiculæ are small, delicate, and generally contain two perfect flowers; and its leaves and stalks are constantly hairy: cultivated in a garden, it becomes larger in every respect, and the spiculæ contain three or more flowers.

We may remark that the Arista or Beard in the living plant is strait, but crooked in dried specimens.

Though not so common as the *Avena elatior*, it is to be found in most pastures, especially such as are elevated, in some meadows, and frequently on grassy banks by the road side, it flowers about the end of June.

Mr. STILLINGFLEET has not enumerated this grass among his valuable ones, yet it is more deserving of that distinction than some of those he has figured, especially the mountain and silver Hair-grass, the latter of which is a trifling annual with respect to agriculture, unworthy of the Farmer's notice: the yellow Oat-grass is a perennial, forms in many counties a principal part of the finest pasturage on the downs, and in divers meadows contributes to the goodness as well as greatness of the crop. As to time, it is not so early as many of the *Poas*, nor is it so late as some of the *Agrostis* tribe; on the whole, from the remarks I have made on it in its wild and cultivated state, I would recommend it as one of the few out of the many English grasses worth the husbandman's attending to.



Avena elatior.

AVENA ELATIOR. TALL OAT-GRASS.

AVENA Linn. Gen. Pl. TRIANDRIA DIGYNIA.

Cal. 2-valvis, multiflorus: arista dorsali contorta.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AVENA elatior paniculata, calycibus bifloris, flosculo hermaphrodito submutico, masculo aristato.

Linn. Syst. Veg. p. 104. Sp. Pl. p. 117. Fl. Suec. n. 102.

AVENA diantha folliculis basi villosis, majoris arista geniculata. *Haller Hist. n. 1492.*

GRAMEN nodosum avenacea panicula. *Bauh. Pin. 2. Scheuchz. Agrost. p. 239.*

GRAMEN caninum nodosum. *Ger. emac. 23.*

GRAMEN caninum bulbosum vulgare. *Park. 1075.*

GRAMEN avenaceum elatius, juba longa splendente *Raii Meth. 179. Syn. p. 406. 4.*

Hudson Fl. Engl. ed. 2. p. 53.

Lightfoot Fl. Scot. p. 105.

Oeder Fl. Dan. t. 165.

Schreber Gram. t. 1.

RADIX perennis, -fibrosa, fibris plurimis, flexuosis, fuscis, intertextis. ROOT perennial, fibrous, the fibres numerous, crooked, of a brown colour, and matted together.

CULMI bi aut tripedales, etiam ultra, erecti, tribus quatuorve geniculis purpurascenscentibus distincti, teretes, laves, basi in bulbillos saepe ex crescente. STALKS from two to three feet high, or even more, upright, having four or five joints of a purplish colour, round, smooth, the base often growing out and forming small bulbs.

FOLIA caulina, spithamea, etiam pedalia, duas tresve lineas lata, una cum vaginâ striata, lavia. LEAVES of the stalk six or seven inches, or even a foot in length, from two to three lines in breadth, together with the sheath striated and smooth.

PANICULA longa, etiam pedalis, erecta, splendens, laxe coarctata, ramulis plurimis, inæqualibus, subsecundis. PANICLE long, even the length of a foot, upright, shining, loosely closing together, branches numerous, unequal, growing in some degree to one side.

SPICULÆ bifloræ, altero flosculo hermaphrodito, altero masculo, fig. 1. SPICULÆ containing two flowers, the one male and the other hermaphrodite, fig. 1.

CALYX: *Gluma* bivalvis, valvulis inæqualibus, membranaceis, acutis, albidis, majore nervis tribus viridibus, minore unico insignitis, fig. 2. CALYX: a *Glume* of two valves, the valves unequal, membranous, pointed, whitish, the largest marked with three and the smallest with one green nerve, fig. 2.

COROLLA maris: valvulæ duæ, longitudine æquales, altera majore, concava, nervis sex viridibus notata, apicibus saepius purpurascenscentibus, acuta, aristata, *Arista* infra medium exsertâ, spiculâ longiore, geniculata, inferne spiralinger contorta, superne setacea; altera planiuscula, apice bicuspida; valvulæ hermaphroditi quoad formam vix discrepant, at nervis medius prope apicem valvulæ exterioris, in aristam brevem excurrit, et basis ejusdem valvulæ pilis plurimis obtigitur, fig. 3, 4. COROLLA of the male flower; composed of two valves, equal in length, the largest hollow, and marked with six ribs, generally purple at top, pointed and bearded; Beard or awn growing out from below the middle of the valves, longer than the spicula, and jointed, on the lower part spirally twisted, on the upper bristle-shaped, the least flattish and terminating in two points; the valves of the hermaphrodite floscule differ but little from the male one as to shape, but the midrib in the outer valve runs out into a short awn, and the bottom of the same valve is covered with numerous hairs, fig. 3, 4.

NECTARIUM *Glumulæ* duæ lanceolatæ, basi subglobosæ, fig. 6. NECTARY: two small *Glumes*, lanceolate, somewhat globular at bottom, fig. 6.

STAMINA: FILAMENTA tria, capillaria; ANTHERÆ oblongæ, flavæ, bifurcatæ. STAMINA: three FILAMENTS very fine. ANTHERÆ oblong, yellow, and forked.

PISTILLUM: GERMEN subovatum, villosum; STYLI duo, magni, ramosissimi, reflexi, fig. 7. PISTILLUM: GERMEN somewhat ovate, villous; STYLES two, large, very much branched and hanging down, fig. 7.

SEmen oblongum, lave, intra glumas calycinæ basi pilosas liberum, fig. 8, 9, 10. SEED oblong, smooth, contained loosely within the glumes of the calyx, which are hairy at bottom, fig. 8, 9, 10.

Experience must determine how far this Grass deserves the attention of the farmer, thus much I may inform him, that it is one of the earliest Grasses in the spring, that it produces a great crop, and when cut down after feeding, it has flowered afresh in the autumn; these are certainly some of the necessary requisites in a good Grass, yet it does not often occur in meadows, but is rather fond of growing on banks, in hedges, and on the borders of fields, where it is very conspicuously in blossom in June and September, nevertheless I have occasionally seen it growing in pastures; the only objection to it, perhaps, is its coarseness, which however should not prevent the farmer from giving it a fair trial.

In particular situations the upper part of the root or rather base of the stalk becomes knobby, and it then forms the *Gramen caninum nodosum* of GERARD, this in some arable land I have been informed is very troublesome, and eradicated as Couch; instances often occur in which a valuable plant in one situation is a perfect weed in another.

It is the most common of all our Oat-Grasses, and is therefore not liable to be mistaken for any other of the same genus.

As it varies with respect to its root, so does it also with regard to its aristæ, of which in general there is only one to each spicula, but sometimes each floscule contained in the spicula has an arista, in which case one is usually longer than the other.

In the grasses no character is more inconstant than that of the awn, arista, or beard, in some grasses whose character it is to be *muticæ* it is present as in the *Lolium perenne*, *Agrostis capillaris*, and *alba*; and in others whose character it is to be *aristatæ* it is wanting, as in the *Agrostis canina*, the striking alteration in the appearance of the grass from this circumstance has often been the case of multiplying species unnecessarily.

AIRA PRÆCOX. EARLY HAIR-GRASS.

AIRA Lin. Gen. Pl. TRIANDRIA DIGYNIA.

Cal. 2-valvis, 2-florus. Flosculi absque interjecto rudimento.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AIRA *præcox* foliis setaceis; vaginis angulatis, floribus paniculato spicatis, flosculis basi aristatis.
Lin. Syſt. Vegetab. p. 96.

GRAMEN paniculatum minimum molle. Bot. Monf. App.

GRAMEN parvum præcox paniculâ (potius spicâ) laxâ canescente. Raii Syn. ed. 3. p. 408. tab. xxii. fig. 2.

GRAMEN avenaceum, capillaceum, minimis glumis minimum. Breynii.

GRAMEN phalaroides, sparsâ paniculâ minimum angustifolium. Barrel. Ic. 44. 1. tab. iv. fig. 15.

Lightfoot Fl. Scot. p. 95.

Hudson Fl. Angl. 31. ed. 2. p. 36.

Oeder Fl. Dan. 383.

RADIX annua, fibrosa.

ROOT annual, and fibrous.

CULMI plures, simplices, bi aut triunciales, semipedales etiam occurunt, teretes, lœves, erecti.

STALKS several, simple, from two to three inches, sometimes even to six inches high, round, smooth, and upright.

FOLIA radicalia sæpius linearia, convoluta, marcida; caulinæ vaginæ breviora, suberecta, paululum recurvata, obtusiflora; Membrana pro ratione folii longa, alba, culmum circumvolvens, in plantis adhuc tenellis notatû digna; Vagina striata, subventricosa.

LEAVES, near the root generally linear, rolled up, and withered; those of the stalk shorter than the sheath, nearly upright, but bending a little back, and somewhat blunt; the Membrane, for the size of the leaf, long, white, surrounding the stem, strikingly conspicuous in the plant while young; the Sheath finely grooved, and bellying a little in the middle.

PANICULA coarctata, spiciformis, mollis, semiuncialis, aut uncialis.

PANICLE closed together, and resembling a spike, soft, half an inch or an inch in length.

SPICULÆ bifloræ, biaristatæ, fig. 1. auſt.

SPICULÆ containing two flowers, each of which has an arista, fig. 1. magnified.

CALYX: GLUMA bivalvis, valvulae subæquales, ovato-acutæ, submembranaceæ, carinâ ad lentem scabrâ, fig. 2.

CALYX: a GLUME of two valves, the valves nearly equal, oval, and pointed, somewhat membranous, the keel appearing rough when magnified, fig. 2.

COROLLA: GLUMA bivalvis, valvulae subæquales, longitudine calycis, altera majori, bicuspidatâ, aristatâ; arista infra medium glumæ posita, corollâ duplo longior, plerumque recta, fig. 3, 5.

COROLLA: a GLUME of two valves, nearly equal, of the length of the calyx, one of which is larger than the other, terminated by two long points, and furnished with an arista; the arista growing out from below the middle of the glume, twice the length of the corolla, and generally strait, fig. 3, 5.

STAMINA: FILAMENTA tria, capillaria, brevissima: ANTHERÆ minimæ, flavescentes, fig. 4.

STAMINA: three FILAMENTS, fine, and very short: ANTHERÆ very minute, and yellowish, fig. 4.

PISTILLUM: GERMEN oblongum: STYLÆ duo, ad basin usque ramosi.

PISTILLUM: GERMEN oblong: STYLES two, and branched to the bottom.

SEMEN oblongum, hinc convexum inde concavum, bicuspidatum, aristatum, basi pilosum, fig. 6, 7.

SEED oblong, convex on one side, and hollow on the other, having two points, with an arista, hairy at bottom, fig. 6, 7.

The *Aira præcox* is very common on most of our heaths about town, particularly on *Blackheath*.

It flowers in April and May, and ripens its seed in June.

SCHÉUCHZER mentions its growing sometimes to the height of fourteen inches, a height it rarely attains with us.



Aira praecox

Siemers, Singb.



Montia fontana.

MONTIA FONTANA. BLINKS.

MONTIA Linn. Gen. Pl. TRIANDRIA TRIGYNIA.

Cal. 2-phyllo. Cor. 1-petala irregularis. Caps. 1-locularis, 3-valvis.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

MONTIA fontana Linn. Syst. Vegetab. p. 110. Sp. Pl. 129. Suec. n. 115.

MONTIA Haller Hift. n. 301.

PORTULACA arvensis. Bauh. Pin. 282.

CAMERARIA arvensis minor. Dill. Gifs. 46.

PORTULACA exigua seu arvensis Camerarii. J. B. III. 678.

PORTULACA tricoccos. Pet. Herb. Brit. 10. 12.

ALSINE flosculis conniventibus. Merr. Pin.

ALSINEFORMIS paludosa tricarpos, flosculis albis inapertis. Pluk. Alm. 21. T. 7. f. 5.

ALSINE parva palustris tricoccos, Portulacæ aquaticæ similis. Raii Syn. p. 352. Small Water Chickweed, or Purslane, by some called Blinks.

Oeder Fl. Dan. t. 113.

Hudson Fl. Angl. ed. 2. p. 60.

Lightfoot Fl. Scot. p. 110.

RADIX annua, fibrosa.

CAULES plurimi, teretes, glabri, rubentes, in terram reclinati et subinde radices agentes, duorum, triumve digitorum longitudine, ramosi et crebris geniculis intercepti.

FOLIA opposita, sessilia, oblonga, acutiuscula, prope basin angustata, subcarnosa, glabra, pallide virentia.

PEDUNCULI plerumque terni, uniflori, axillares, peractâ florescentiâ recurvati, postea erecti, foliis longiores, e squama membranacea produentes.

CALYX: PERIANTHIUM diphylum; foliolis ova-tis, concavis, obtusis, erectis, persistentibus, fig. 1. 9.

COROLLA monopetala, quinquepartita, alba, laci-niis tribus, alternis, minoribus, staminiferis, fig. 2, 3, 4.

STAMINA: FILAMENTA tria, capillaria, corollâ bre-viora, cui inserta: ANTERÆ parvæ, albæ, fig. 4.

PISTILLUM: GERMIN turbinatum, subtriangulare; STYLI tres, villosi, patentes; STIGMATA simplicia, fig. 5.

PERICARPIUM: CALYX permanens, auctus, truncatus, continet CAPSULAM, turbinatam, uni-locularem, trivalvem, valvulis ovatis, acutis, monospermis, demiflo femine filiformibus, calyce paulo longioribus, fig. 6, 7, 8, 10.

SEMINA nigra, subreniformia, fig. 11.

ROOT annual, and fibrous.

STALKS numerous, round, smooth, reddish, spreading on the ground, and sometimes striking root, two or three inches in length, branched and jointed.

LEAVES opposite, sessile, oblong, somewhat pointed, narrowed near the base, rather fleshy, smooth, and of a pale green colour.

FLOWER-STALKS generally growing three together, each supporting one flower, proceeding from a little scale in the bosom of the leaves, as soon as the flowering is over hanging down, afterwards becoming upright and longer than the leaves.

CALYX: a PERIANTHIUM of two leaves: the leaves ovate, concave, obtuse, upright, and permanent, fig. 1. 9.

COROLLA of one petal, deeply divided into five segments, of a white colour, the three alternate ones least, having the stamina attached to them, fig. 2, 3, 4.

STAMINA: three slender FILAMENTS shorter than the corolla to which they are connected: ANTERÆ small and white, fig. 4.

PISTILLUM: GERMIN large at top, small at bottom, and somewhat triangular; STYLES three, villous, spreading; STIGMATA simple, fig. 5.

SEED-VESSEL: the permanent and increasing CALYX, cut off as it were at top, contains a CAPSULE of the same shape as the germin, of one cavity and three valves, the valves ovate, and pointed, each containing one seed, on the falling of which they become thread-shaped, and a little longer than the calyx, fig. 6, 7, 8, 10.

SEEDS black and somewhat kidney-shaped, fig. 11.

This plant, of which there is but one species, appears first to have had a generic character bestowed on it by DILLENIUS, who called it *Cameraria* in honour of CAMERARIUS, a German Physician and Botanist; MICHELI afterwards figured it among his *Nova Genera*, and gave it the name of *Monti*, in commemoration of his countryman MONTI, an Italian Botanist, which name has been adopted by LINNÆUS.

Its parts of fructification, which are represented in a magnified state on the plate, and of which a particular description is given, are singular enough to justify these authors in making it a distinct genus.

The English name of *Blinks* has perhaps been given to this plant from the blossoms usually appearing in a half opened state, but when the sun shines on them they are fully expanded.

It grows in wet places, especially on the moist gravelly parts of heaths, where the water stagnates in the winter, on *Black-Heath*, *Hampstead-Heath*, and in other similar situations it is very common, flowering in May, and ripening its seed in the beginning of June.

It is easy of cultivation, but not remarked for its utility in any respect; the seed may probably be the food of small birds.

DIPSACUS SYLVESTRIS. WILD TEASEL.

DIPSACUS. Linn. Gen. Pl. TETRANDRIA MONOGYNIA.

Calyx communis, polyphyllus; proprius superus. Recept. paleaceum.

Raii Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

DIPSACUS capitulis ovatis, foliis arcuatis circumvallatis, aristis squamarum rectis. Haller Hist. n. 198.

DIPSACUS sylvestris seu Labrum Veneris. J. B. III. 74.

DIPSACUS sylvestris aut Virga pastoris major. C. B. Pin. 385.

DIPSACUS sylvestris. Ger. emac. 1167. Parkins. 984.

Hudson Fl. Angl. ed. 2. p. 6.

Lightfoot Fl. Scot. p. 113.

Jacquin Fl. Austr. t. 402.

RADIX biennis, simplex, fibris majusculis donatus. CAULIS tripedalis ad orgyalem, ramosus, teres, striatus, inanis, inferius spinis rarius dispositis, prope capitula creberrimis horridus.

FOLIA radicalia primi anni supra terram in orbem sparsa, ovato-oblonga, obtusiflora, crenato-ferrata, rugosa, spinulis rarioribus aspera, caulinis saltē inferiora minus rugosa, basi adeo connata ut sinum magnum efficiant, post pluvias aquā plenum, ovato-acuta, crenata, spinis ad marginem et nervum medium rarius obſitum, summa minus connata, magisque lanceolata, integerrima et fere inermia.

CAPITULA plurima, solitaria, erecta, ovato-oblonga, subacuminata.

FLORES purpurei, circa medium capituli primo erumpentes.

INVOLUCRUM polyphyllum, foliolis sublinearibus, rigidis, spinulosis, sursum arcuatis, longitudine capituli, inaequalibus.

CALYX: PERIANTHİUM proprium, minimum, viride, ciliatum, fig. 1.

COROLLA monopetala, tubulosa; *Tubus* infundibuliformis, basi attenuatus, albido, ad lentem villosulus; *LIMBUS* quadrifidus, erectus, purpureus, laciniis obtusis, extimā majori, fig. 2.

STAMINA: FILAMENTA quatuor, albida, capillaria, recta, tubo corollæ inserta; ANTHÈRE incubentes, oblongæ, violacea, fig. 3.

PISTILLUM: GERMEN inferum, tetragonum, albidum, fulcatum, margine superne viridi; STYLUS filiformis albus, corollâ paulo brevior; STIGMA canaliculatum, subinflexum, fig. 4, 5, 6.

RECEPTACULUM paleaceum, paleis longitudine staminum, rigidis, aristatis, supremis longioribus, basi concavis, subtriangularibus; *Arista* acuminata, recta, hispidula, fig. 8.

ROOT biennial, simple, furnished with large fibres. STALK from three to six feet high, branched, round, striated, hollow, spinous, spines near the base but few, near the heads very numerous, long and sharp.

LEAVES: radical leaves of the first year's plant spread on the ground in a circular form, are of an oblong oval shape, bluish at the point, notched on the edges, wrinkled, and rough with spines thinly scattered over the leaf, those of the stalk at least the lowermost ones, are less wrinkled, and united at the base in such a manner as to form a large cavity, which contains water after rain, of an oval pointed shape, notched, and thinly beset with spines on the edge and mid-rib, the uppermost leaves slightly united at the base, narrower, entire, and almost free from spines.

HEADS numerous, growing singly on foot-stalks, upright, of an oblong egg shape, somewhat pointed at top.

FLOWERS purple, first breaking forth about the middle of the head.

INVOLUCRUM composed of many leaves which are somewhat linear, rigid, beset with small spines, bending upwards, the length of the heads, unequal.

CALYX: the PERIANTHİUM of each floscule is very minute, green, and edged with hairs, fig. 1.

COROLLA monopetalous, tubular; the *Tube* funnel-shaped, narrowed at the base, whitish and slightly villous if magnified; the *Limb* divided into four segments, upright, purple, the segments obtuse, the outermost largest, fig. 2.

STAMINA: four FILAMENTS, of a whitish colour, very fine, straight, inserted into the tube of the corolla; ANTHÈRE incumbent, oblong, of a violet colour, fig. 3.

PISTILLUM: GERMEN placed below the calyx, four cornered, whitish, grooved, the edge on the upper part green; STYLE thread-shaped, white, a little shorter than the corolla, STIGMA channelled and bent a little in, fig. 4, 5, 6.

RECEPTACLE chaffy, chaff the length of the Stamina, rigid, bearded, the uppermost longest, at bottom hollow, and somewhat triangular; the Beard or awn running out to a long, straight, and somewhat hispid point, fig. 8.

The ancient Botanists always considered the wild and the manured Teasel as two distinct species, and until the time of LINNÆUS but one opinion prevailed on the subject; that great Botanist too hastily concluded that the *Dipsacus fullonum* was only a variety of the *sylvestris*; some few have implicitly followed that opinion; but HALLER and JACQUIN, distinguished by their nice discernment and accurate descriptions, unite in considering the *sylvestris* as a species totally distinct from the *fullonum*: in the manured Teasel the leaves of the Involucrum are short and horizontally extended, in the wild one they are long and encircle the head; the Paleæ in the former are always hooked at the extremity, in the latter never, though cultivated; many other distinctions will be pointed out when we give the history and manner of cultivating the manured Teasel.

This species grows very commonly on the edges of pastures, in uncultivated places, by road sides, and flowers from July to September.

The water collected in the basin, formed by the union of the leaves towards the bottom of the stalk, is said to cure warts on the hands if several times washed with it, and hence RAY conjectures this plant might have received its name of *Labrum Veneris*.

Cattle in general, even the Afs, appear to avoid it; as is shewn by the dried stems and heads which remain all the winter, but there is a small Moth about twice the size of the *Euonymella*, speckled with black, which finds its way into this formidable plant, and makes a comfortable and secure domicilium of its spinous head. Vid. Mouset Theat. Infect. p. 256. Raii catal. plant. circa Cant. p. 45.



Dipsacus sylvestris.

SCABIOSA SUCCISA. DEVIL'S-BIT, or MEADOW SCABIOUS.

SCABIOSA Linn. Gen. Pl. TETRANDRIA MONOGYNIA.

Cal. communis polyphyllus; *proprius* duplex superus. *Recept.* paleaceum s. nudum.

Raii Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

SCABIOSA *Succisa* corollulis quadrifidis æqualibus, foliis caulinis dentatis, floribus subglobosis.

SCABIOSA *Succisa* corollulis quadrifidis æqualibus, caule simplici, ramis approximatis, foliis lanceo-lato-ovatis integerrimis. *Linn. Syst. Vegetab.* p. 142.

SCABIOSA caule trifloro, floribus convexis, foliis radicalibus ovatis, caulinis lanceolatis. *Haller Hist. 201.*

SCABIOSA *Succisa*. *Scopoli Fl. Carniol* p. 95. n. 138.

SUCCISA glabra et hirsuta. *Bauh. Pin.* 269.

—MORSUS DIABOLI. *Ger. emac.* 726.

MORSUS DIABOLI vulgaris flore purpureo. *Parkins.* 491.

SCABIOSA radice succisa, flore globoſo. *Raii Syn.* 191. Devil's-Bit.

Hudson Fl. Angl. ed. 2. p. 63.

Lightfoot Fl. Scot. p. 114.

RADIX adulta crassitie fere digiti minimi, saepe obliqua, præmorsa, fibris longis albidis prædita.

CAULIS pedalis, ad sesquipedalem, suberectus, nobiscum raro simplex, at in duos, tres, vel plures ramos divisus, teres, hirsutus, rubescens.

FOLIA radicalia ovalia, petiolis brevibus insidentia, saturate viridia, in petiolum breviter decurrentia, integerrima, pilis longis utrinque hirsuta, caulina opposita, connata, lanceolata, rariter dentata, suprema sublinearia, integriformis.

CAPITULI Florum subglobosi, cærulei, solitarii, pendunculis longis nudis seu parum foliosis insidentibus.

CALYX: PERIANTHIUM commune multiflorum, patens, polyphyllum; foliolis ovato-acutis, ciliatis, basi subgibbosis, seriebus variis receptaculum cingentibus, eique insidentibus, quorum interiora gradatim minora; fig. 1, 11. *Perianthium* proprium duplex, inferius tetragonum, pilosum, germen includens; fig. 2, superius germini insidens, quinquepartitum, laciniis setaceis, fig. 3.

COROLLA monopetala, tubulosa, quadrifida, laciniis obtusis, tribus inferioribus subæqualibus, superiore longiore, fig. 4.

STAMINA: FILAMENTA quatuor, subulata, corollâ fere duplo longiora; ANTERÆ oblongæ, incumbentes, violaceæ; POLLEN album, fig. 5.

PISTILLUM: GERMEN minimum, albidum, cylindraceo-ovatum; STYLUS filiformis, dum anteræ pollinem dimittunt longitudine labii inferioris corollæ; STIGMA orbiculatum, medio depresso, fig. 6, 7, 8.

SEmen oblongum, sulcato-angulosum, hirsutum, testis quinque coronatum, fig. 10.

ROOT when full grown, nearly the thickness of the little finger, often growing obliquely, bit off as it were, or stumped at the extremity, and furnished with long whitish fibres.

STALKS from a foot to a foot and a half high, nearly upright, with us rarely single, but divided into two, three, or more branches, round, beset with rough hairs, and of a reddish colour.

LEAVES next the root, oval, standing on short foot-stalks, of a deep green colour, running a little way down the foot-stalk, entire at the edge, covered on both sides with long, rough hairs; those on the stalk opposite, connate, lanceolate, sparingly toothed on the edge, the uppermost nearly linear and entire.

HEADS of the flowers nearly round, blue, single, fitting on long, naked, or almost naked flower stalks.

CALYX: the general PERIANTHIUM supports many florets, is spreading, and composed of many leaves, which are of an oval pointed shape, edged with hairs, somewhat gibbous at the base, surrounding and fitting on the receptacle in various rows, of which the innermost are gradually the smallest, fig. 1, 11. *Perianthium* of each floret double, the lower one four-cornered, hairy, enclosing the germen, fig. 2, the upper one fitting on the germen, divided deeply into five segments, shaped like bristles, fig. 3.

COROLLA monopetalous, tubular, divided into four obtuse segments, the three lowermost of which are nearly equal, the uppermost somewhat longest, fig. 4.

STAMINA: four FILAMENTS, tapering to a point, almost twice the length of the corolla; ANTERÆ oblong, incumbent, of a violet colour; POLLEN white, fig. 5.

PISTILLUM: GERMEN very small, whitish, rarely cylindrical, enclosed within the calyx; STYLE thread-shaped, while the anteræ are shedding the pollen the length of the lower lip of the corolla; STIGMA round, flat, with a depression in the middle, fig. 6, 7, 8.

SEED oblong, angular, grooved, beset with rough hairs, and crowned with five setæ or bristles, fig. 10.

The Devil's-Bit is one of those few plants which adorn our pastures in Autumn, and is capable of adding some beauty even to the flower garden, in which it grows much more branched than in its wild state, and continues in blossom from August to the end of October; like Plantain and many other herbs, the root when full grown is stumped at the extremity.

" Fabulous antiquity (the Monkes and Fryers, as I suppose, being the first inventors of the fable) said, that the Devill envying the good that this herbe might do to mankinde, bit away part of the root, and thereof came the name of Succisa, or Devil's-Bit." *Parkins. Theat.* p. 491.

Modern practitioners not finding those wonderful good effects have rejected it.

According to BERGIUS the root possesses an astringent quality, and the infusion of it is bitterish, but not unpleasant to the taste.

The Caterpillar of one of the Fritillary Butterflies (*Papilio maturna* of LINNÆUS, the *greasy Fritillary* of the Aurelians) feeds on the leaves of this species.



Scabiosa Succisa.

CENTUNCULUS MINIMUS. BASTARD PIMPERNEL.

CENTUNCULUS Linn. Gen. Pl. TETRANDRIA MONOGYNIA.

Cal. 4-fidus. Cor. 4-fida, patens. Stam. brevia. Caps. 1-locularis, circumscissa.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETAЛО.

CENTUNCULUS minimus. Linnæi Syst. Vegetab. p. 133. Spec. Plantar. p. 169. Flor. Suec. p. 136.

CENTUNCULUS Haller Hist.

CENTUNCULUS Dillen. Catal. Giss. p. 161. et App. p. 111. Tab. 5.

ALSINE palustris minima, flosculis albis, fructu Coriandri exiguo. Mentz. Pug. Icon.

ANAGALLIS palustris. Vaillant. p. 12. t. 4.f. 2.

ANAGALLIDIASTRUM exiguum foliis lanceolatis alternis, flore albo fugaci et vix conspicuo. Micheli nov. gener. p. 14. t. 18. Hudson Fl. Angl. ed. 2. p. 63.

RADIX annua, simplex, fibrosa.	ROOT annual, simple, and fibrous.
CAULIS unguicularis ad pollicarem aut ultra, simplex aut ad basin ramosus, suberectus, teres, glaber.	STALK from half an inch to an inch in height or more, simple or branched at bottom, somewhat upright, round, and smooth.
FOLIA alterna, sessilia, ovata, acuta, integerrima, glabra, subcarnosa, patentia.	LEAVES alternate, sessile, ovate, pointed, entire at the edge, smooth, somewhat fleshy and spreading.
FLORES minimi, solitarii, axillares, sessiles.	FLOWERS very minute, single, in the alæ of the leaves, without footstalks.
CALYX: PERIANTHIUM quadripartitum, patens, persistens, laciniis ovato-lanceolatis, margine fuscis, corolla longioribus, fig. 1.	CALYX: a PERIANTHIUM divided deeply into four segments, spreading, and permanent; the segments ovato-lanceolate, brown on the edge, and longer than the corolla, fig. 1.
COROLLA monopetala, purpurascens, subrotata; TUBUS globosus; LIMBUS quadripartitus, erectus, laciniis ovato-acutis; demum clausis, et calypræ instar capsulâ insidentibus, fig. 2.	COROLLA purplish, monopetalous, somewhat wheel-shaped; TUBE globular; LIMB divided into four segments, which are upright, and of a pointed oval shape, finally closed and fitting like a calyptra on the top of the capsule, fig. 2.
STAMINA: FILAMENTA quatuor, corollâ breviora; ANTHERÆ minimæ, flavæ, fig. 3.	STAMINA: four FILAMENTS shorter than the corolla; ANTHERÆ very minute and yellow, fig. 3.
PISTILLUM: GERMEN subrotundum, intra tubum corollæ; STYLUS filiformis, longitudine germinis et corollæ, erectus, persistens; STIGMA simplex, fig. 4.	PISTILLUM: GERMEN roundish, within the tube of the corolla; STYLE filiform, the length of the germen and corolla, upright and permanent; STIGMA simple, fig. 4.
PERICARPIUM: CAPSULA globosa, unilocularis, circumscissa, fig. 5.	SEED-VESSEL: a CAPSULE of a globular shape, of one cavity, dividing horizontally in the middle, fig. 5.
SEMINA plurima, minima, subconica, fig. 6.	SEEDS numerous, very small and somewhat conical, fig. 6.

The English Botanist is here presented with a plant remarkable for the minuteness of all its parts, but more especially of its blossoms, which are not expanded so as to shew the interior structure of the flower, unless the sun shines strongly on them, then we discern its yellow stamens; DILLENIUS, who first gave to this plant the name of *Centunculus* and made a new genus of it, remarks a circumstance deserving notice, which is that the Corolla, which in most of the *rotaceæ* (wheel-shaped flowers) drops after blossoming, here continues, and covers the top of the capsule.

From the small number of places in which this plant has been described to grow, we have been led to consider it as a much scarcer plant than it really is.

The first time of my discovering the *Centunculus minimus* was this summer, when herbarizing in company with Mr. DYER; I found it on *Ashford-Common*, near his country seat, it there grew in tolerable plenty, in moist depressed situations, usually overflowed in the winter along with the *Littorella lacustris*; passing from *Ashford* to *Hounslow-Heath*, I there found it in similar situations in greater plenty, *Spergula nodosa* in bloom, *Veronica Serpyllifolia* and *Sagina procumbens* growing in abundance near it; this was about the middle of July, when the plant had both flowers and capsules on it, and August the 21st, plants from the same place removed into my garden, and placed in a pot in a shady situation, were in great perfection, so that the *Centunculus* is not so fugacious a plant as many.

It generally grows about the size figured in the plate, but may, according to circumstances, be found much larger, as well as much smaller.

Its round capsules in the alæ of the leaves, like small Coriander seeds, contribute most to the discovering of it.

185



Centunculus minimus.



Sagina procumbens

SAGINA PROCUMBENS. PROCUMBENT PEARLWORT.

SAGINA Linnæi Gen. Pl. TETRANDRIA TETRAGYNIA.

Cal. 4-phyllus. Petala. 4. Caps. 1-locularis, 4-valvis, polysperma.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

SAGINA procumbens ramis procumbentibus. Linn. Syst. Vegetab. Sp. Plant. 185. Fl. Suec. n. 155.

ALSINE tetrastemon foliis connatis, lanceolatis. Haller Hist. n. 861.

SAGINA procumbens. Scopoli Fl. Carn. n. 183.

SAXIFRAGA anglicana alsinefolia. Gerard emac. 568.

CARYOPHILLUS minimus muscosus nostras. Parkinson 1340.

ALSINELLA muscofo flore repens. Cat. Giss. Raii. Syn. p. 345. Pearlwort, Chickweed Breakstone.

Hudson. Fl. Angl. ed. 2. p. 73.

Lightfoot. Flor. Scot. p. 125.

RADIX annua plerumque, in locis vero umbrosis
sæpe perennat. ROOT generally annual, but in shady places often
perennial.

CAULES plurimi, in umbrosis humentibus repentes,
in aridis erecti, bi, triunciales, teretes, glabri,
geniculati, ramosi, proliferi. STALKS numerous, in shady moist places creeping,
in dry situations upright, two or three inches
in length, round, smooth, jointed, branched
and proliferous.

FOLIA semunciam longa, opposita, patentia, connota,
subulata, mucronata, glabra, saturate vi-
ridia, fasciculatim ramos terminantia.

LEAVES half an inch long, opposite, spreading, joining
at bottom, narrow, and tapering, terminated
by a fine hair-like point, smooth, of
a deep green colour, and terminating the
branches in clusters.

PEDUNCULI axillares, plerumque uniflori, alterni,
foliis longiores, priusquam flores aperiuntur
apice nutantes.

FLOWER-STALKS growing from the alæ of the
leaves, usually supporting one flower, longer
than the leaves, before the blossoms open
nodding at top.

CALYX: PERANTHUM tetraphyllum, foliolis ova-
tis, concavis, persistentibus, patentibus, fig. 1.

CALYX: a PERANTHUM of four leaves, which are
ovate, hollow, permanent, and spreading, fig. 1.

COROLLA: PETALA quatuor, minima, calyce tri-
plo breviora, alba, patentia, sæpe manca,
fig. 2.

COROLLA: four PETALS, very minute, three times
shorter than the calyx, white, spreading, and
often imperfect, fig. 2.

STAMINA: FILAMENTA quatuor, capillaria; AN-
THERÆ subrotundæ, flavæ, fig. 3.

STAMINA: four FILAMENTS very fine; ANTHERÆ
roundish and yellow, fig. 3.

PISTILLUM: GERMEN subglobosum; STYLI qua-
tuor, subulati, recurvi, pubescentes; STIG-
MATA simplicia, fig. 4.

PISTILLUM: GERMEN somewhat globular; STYLES
four, tapering, bending back a little, with
an appearance of down on them; STIGMATA
simple, fig. 4.

PERICARPIUM: CAPSULA subovata, pellucida, ca-
lyce patulo infidens, unilocularis, quadrival-
vis, fig. 5.

SEED-VESSEL: a CAPSULE somewhat ovate, and
pellucid, fitting on the spreading calyx, hav-
ing one cavity and four valves, fig. 5.

SEMINA numerosa, minima, rufa, receptaculo affixa.

SEEDS numerous, very small, of a reddish brown
colour, and affixed to a receptacle.

Few plants are more liable to mislead the young Botanist than this, as there are few that assume so great a variety of appearance, in moist shady situations, especially if growing on the ground, it creeps and forms a thick close turf and looks like a patch of grass, the leaves are of a fine deep green and rather fleshy; on walls, especially if it be the shady side, it frequently grows upright even to the height of six inches, and is in every respect more slender; on walls that are exposed to the sun it seldom grows more than two inches high; under all this diversity, the singular appearance of its seed vessels will in general easily distinguish it, being placed on the centre of the expanded permanent calyx like a cup on a saucer.

Its petals are very minute, generally imperfect and sometimes wanting.

It is not unusual to meet with it, having one fifth part of its fructification increased.

Being fond of a gravelly soil it often becomes a troublesome weed in gravel walks.

It continues to flower during the whole of the summer.

In the leaves we have a good example of the *folium mucronatum*.

MYOSOTIS SCORPIOIDES. MOUSE-EAR SCORPION-GRASS.

MYOSOTIS Linn. Gen. Pl. PENTANDRIA MONOGYNIA.

Cal. hypocrateiformis, 5. fida, emarginata : faux clausa fornicibus.

Raii Syn. Gen. 13. HERBÆ ASPERIFOLIA.

MYOSOTIS *Scorpioides* seminibus lœvibus, foliorum apicibus callosis. Linn. Syst. Vegetab. Sp. Pl. p. 188. Fl. Suecic. n. 157.

SCORPIURUS radice longa fibrata perenni. Haller Hist. 591.

MYOSOTIS *Scorpioides*. Scopoli n. 185.

ECHIUM *scorpioides* palustre. Bauh. Pin. 254.

MYOSOTIS *scorpioides* palustris. Ger. emac. 337.

MYOSOTIS *scorpioides* repens. Park. 691. Raii Syn. p. 222. n. 4. Water Scorpion-Grass.

Hudson. Fl. Angl. ed. 2. p. 78.

Lightfoot Fl. Scot. p. 232.

RADIX	per aquam longe excurrit, et fibrillas e geni- culis dimittit.	ROOT	runs out to a great length through the water, and sends down fibres from the joints.
CAULIS	basi repens, dein erectus, pedalis aut bipe- dal, teres, solidus, ramosus, glaber, sæpe hirsutus.	STALK	creeping at bottom, afterwards upright from one to two feet high, round, solid, branch- ed, smooth, but often hairy.
FOLIA	alterna, lanceolata, sessilia, subdecurrentia, glabra sive hirsuta, margine sæpe revoluta.	LEAVES	alternate, lanceolate, sessile, slightly decur- rent, smooth or hirsute, the edge often rolled back.
RACEMI	longi, dichotomi, divaricati, apicibus invo- luti.	RACEMI	long, dichotomous; divaricating, the tops rolled in.
FLORES	pedunculati, secundi; pedunculis alternis, erectis.	FLOWERS	standing on footstalks and growing all one way; footstalks alternate and upright.
CALYX:	PERANTHUM monophyllum, tubulatum, quinquedentatum, persistens, fig. 1.	CALYX:	a PERANTHUM of one leaf, tubular, hav- ing five teeth and permanent, fig. 1.
COROLLA	monopetala, hypocrateiformis, <i>Tubus</i> longitudine calycis; <i>Limbus</i> planus, semi- quinquefidus, <i>laciniis</i> obtusis, subemarginatis; <i>Faux clausa</i> sqamulis quinque convexis, prominentibus, luteis, fig. 2, 3. 6.	COROLLA	monopetalous, falver-shaped, the <i>Tube</i> the length of the calyx: the <i>Limb</i> flat, divided into five blunt segments with a slight notch in each; the mouth closed with five convex prominent yellow scales or glands, fig. 2, 3. 6.
STAMINA:	FILAMENTA quinque in collo tubi, bre- vissima: ANTERÆ oblongæ, flavæ, apicibus tumidis, testæ, fig. 4.	STAMINA:	five Filaments, very short, placed in the neck of the tube; ANTERÆ oblong, yellow, the tips swelled, and enclosed, fig. 4.
PISTILLUM:	GERMINA quatuor; STYLUS filiformis, longitudine tubi corollæ; STIGMA ob- tusum.	PISTILLUM:	GERMINA four; STYLE thread shaped; the length of the tube of the corolla; Stigma blunt.
PERICARPIUM	nullum, Calyx semina in sinu fovens.	SEED-VESSEL	wanting, the <i>Calyx</i> containing and enclosing the seeds.
SEMINA	quatuor, ovata, glabra, nigricantia, nitida, fig. 5.	SEEDS	four, oval, smooth, blackish, and shining, fig. 5.

Few plants assume so great a variety of appearances as the *Myosotis scorpioides*, few accommodate themselves to such a diversity of soil and situation; the very different habit which this plant assumes in dry and wet situations, has induced HALLER to divide it into two species, viz. annual and perennial, the aquatic one having according to him a perennial, and the other an annual root; we might perhaps be nearly as much justified in considering some others of its striking varieties as species also, particularly the one with yellow flowers and the larger flowered one figured by RAY, but as LINNÆUS and the generality of modern Botanists agree in considering them all but as one species, we rather choose to acquiesce in their determination; should future observation or experiment give us any reason to suppose them species, we shall be very happy to do justice to the opinion of Baron HALLER.

The aquatic variety here figured grows very commonly in wet ditches and rivulets, its flowers especially in shady situations being much larger and more conspicuous than when growing in a dry soil, are often remarked for their beauty and delicacy, they somewhat resemble blue enamel, and are a very pretty ornament for the edges of ponds.

On dry ground it usually occurs in fallow fields, and gardens but little cultivated; the varieties with yellow flowers is not unfrequent on dry sandy banks, and sometimes on walls; they all flower from May to August and September.

LINNÆUS suspects its being poisonous to sheep. vid. *Stillingfleet's miscel. tract.* p. 355. ed. 2.



Myosotis scorpioides



Lysimachia nummularia

J. C. WOODHOUSE

LYSIMACHIA NUMMULARIA. MONEYWORT.

LYSIMACHIA *Linnæi Gen. Pl. PENTANDRIA MONOGYNIA.*

Cor. rotata. Caps. globosa, mucronata, 10-valvis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

LYSIMACHIA *Nummularia foliis subcordatis, floribus solitariis, caule repente. Lin. Syst. Veget. p. 165. Sp. Pl. p. 211. Fl. Suecic. p. 63.*

LYSIMACHIA *caule prostrato, foliis subrotundis, petiolis alaribus unifloris. Haller Hist. Helv. n. 629.*

LYSIMACHIA *Nummularia. Scopoli Fl. Carniol. n. 216.*

NUMMULARIA *major lutea. Bauhin Pin. 309.*

NUMMULARIA *Gerard emac. 630.*

NUMMULARIA *vulgaris. Parkinson 555.*

Raii Synop. p. 283, Moneywort, or Herb Twopence.

Oeder. Flor. Dan. Ic. 493.

Hudson Fl. Angl. ed. 2. p. 87.

Lightfoot Fl. Scot. p. 138.

RADIX perennis, fibrosa, fibris simplicibus, descendentibus. ROOT perennial and fibrous, the fibres simple, and striking downward.

CAULES plures, simplices, procumbentes, versus apicem repentes et subramosi, pedales et ultra, laves, geniculati, utrinque profunde canaliculati, five tetragoni.

FOLIA ovato-orbiculata, opposita, erecta, glabra, subvenosa, parum undulata, petiolis brevibus, latis, decurrentibus, insidentia.

PEDUNCULI plerumque bini, oppositi, erecti, longitudine foliorum, angulati, versus apicem fensim incrassati.

FLORES lutei, majusculi, subrotati.

CALYX: PERIANTHIUM pentaphyllum, foliolis cordato-acutis, erectis, subcarinatis, marginibus, basi reflexis, fig. 1.

COROLLA quinquepartita, laciinis ovatis, acutis, patentibus, calyce duplo longioribus, suberosis, margine glandulosâ, adhibito microscopio, fig. 2.

STAMINA: FILAMENTA quinque, subulata, erecta, glandulosa, corollâ breviora: ANTERÆ sagittatæ, fig. 3, 4.

PISTILLUM: GERMEN subrotundum: STYLUS filiformis, staminibus paulo longior, nudus: STIGMA parvum, obtusum, fig. 5, 6.

PERICARPIUM plerumque abortat.

STALKS numerous, simple, trailing, towards the top creeping and somewhat branched, a foot or more in length, smooth, jointed, deeply channeled on each side, or four-cornered.

LEAVES of a shape betwixt ovate and round, opposite, upright, smooth, somewhat veiny, and a little waved, fitting on short broad footstalks, which run down the main stalk.

FLOWER-STALKS growing generally two together, one opposite the other, upright; the length of the leaves, angular, gradually enlarged towards the end.

FLOWERS yellow, large in proportion to the leaves, and somewhat wheel-shaped.

CALYX: a PERIANTHIUM of five leaves, heart-shaped and pointed, somewhat keeled, the edges at bottom turning back, fig. 1.

COROLLA deeply divided into five segments, which are oval, pointed, and twice the length of the calyx, slightly jagged and glandular on the edge, if viewed with a microscope, fig. 2.

STAMINA: five FILAMENTS, tapering, upright, glandular, and shorter than the corolla: ANTERÆ arrow-shaped, fig. 3, 4.

PISTILLUM: GERMEN nearly round: STYLE thread-shaped, a little longer than the stamina: STIGMA small and blunt, fig. 5, 6.

SEED-VESSEL rarely comes to perfection.

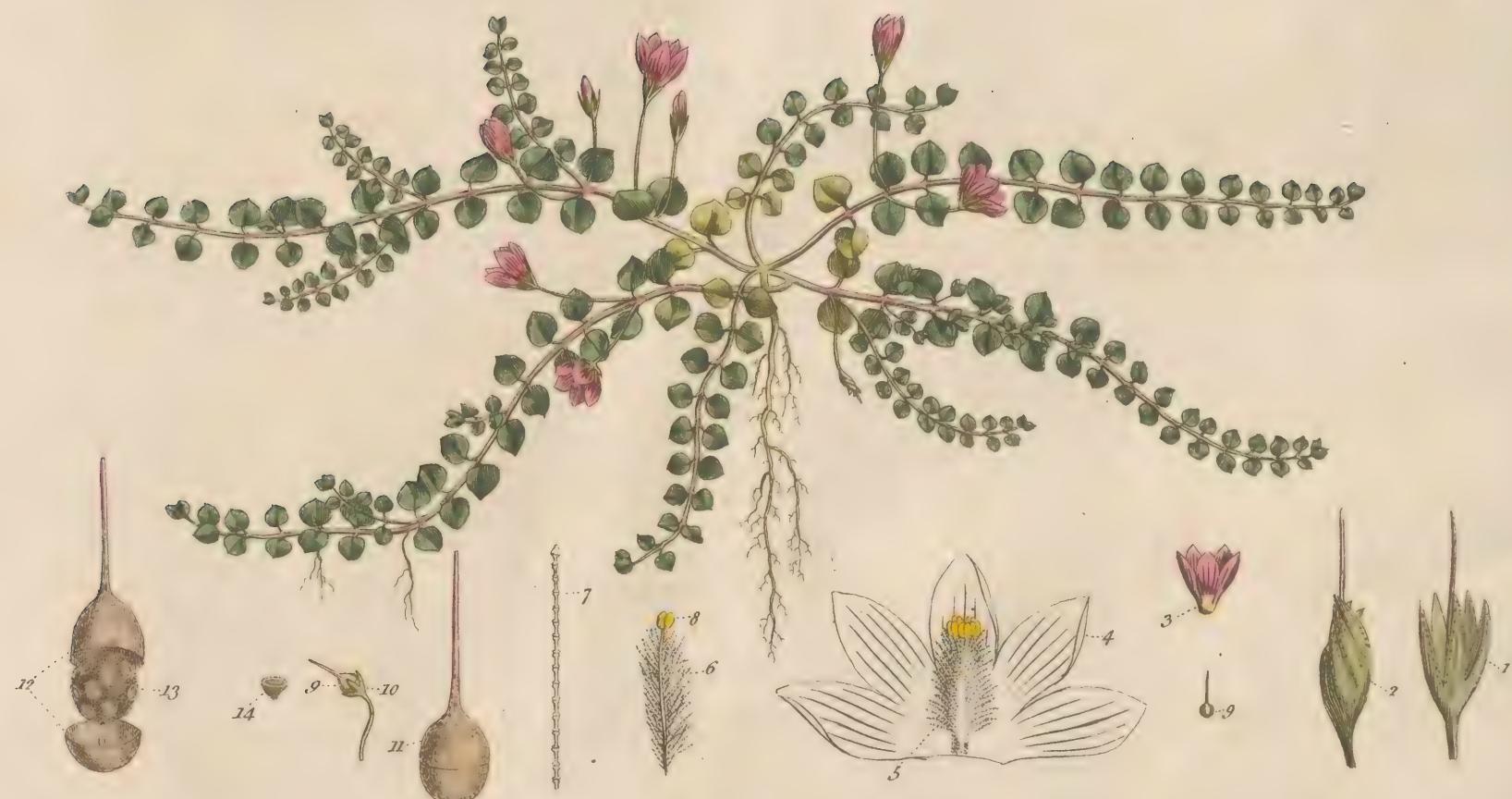
It often happens that those plants which increase much while in flower, either by their roots or stalks, seldom produce ripe seeds: this is the case with the *Butterbur* and *Periwinkle*, as well as the present plant, on which, though I have examined a great number of specimens, I have not hitherto been fortunate enough to discover capsules ripe and perfectly formed; yet it is probable, that in some particular situations, such may be found.

The name of *Moneywort* has been given to this species from the roundness of its leaves, by which it is, in one instance, distinguished from the *Lysimachia nemorum*. It grows in meadows, particularly on the edges of the ditches; also under hedges in moist situations; and is too common to need any particular place of its growth to be pointed out.

In a moist situation, no plant thrives more in a garden, nor with less trouble: it continues a long while in blossom; but without this advantage, the beauty and singularity of its foliage, is sufficient to recommend it.

The taste of the leaves is subastringent, and very slightly acid; hence they stand recommended by BOERHAVE in the hot scurvy, and in uterine and other haemorrhages. But their effects are so inconsiderable, that common practice takes no notice of them. *Lewis's Disp. p. 184.*

It is eaten by Kine and Sheep, not much relished by Goats, and refused by Horses. *Lin. Amæn. Acad. Pan. Suec.*



Anagallis tenella.

ANAGALLIS TENELLA. BOG PIMPERNEL.

ANAGALLIS Linn. Gen. Pl. PENTANDRIA MONOGYNIA.

Cor. rotata. Caps. circumscissa.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

ANAGALLIS *tenella* foliis ovatis acutiusculis, caule repente. Linn. Synt. Vegetab. p. 165. Sp. Pl. p. 211.

LYSIMACHIA *tenella*. Hudson Fl. Angl. ed. 2. p. 87.

ANAGALLIS *tenella*. Lightfoot Fl. Scot. p. 139.

NUMMULARIA minor flore purpurascente. Bauh. Pin. 310. Ger. emac. 630. Park. 555. Raii Syn. p. 283. Purple-Flowered Moneywort.

RADIX perennis, fibrosa.	ROOT perennial and fibrous.
CAULES plurimi, bipinnicantes aut palmates, teretes, glabri, repentes, ramosi, geniculis purpureis.	STALKS numerous, from two to four inches long, round, smooth, creeping, branched, the joints purple.
FOLIA opposita, parva, subrotunda, integerrima, utrinque glabra, petiolis brevissimis insidentia.	LEAVES opposite, small, nearly round, entire at the edge, smooth on both sides, fitting on very short foot-stalks.
PEDUNCULI axillares, bini, longi, etiam pollicantes, erecti, demum incurvati, simplices, uniflori.	FLOWER-STALKS growing in pairs from the alæ of the leaves, even an inch in length, upright, but finally bent downward, single, and supporting one flower on each.
FLORES subcampanulati, pro ratione plantæ majusculi, carni, venis rubellis, saturatioribus picti, fig. 3, 4.	FLOWERS somewhat bell-shaped, rather large for the size of the plant, of a reddish colour, and painted with deeper coloured veins, fig. 3, 4.
CALYX: PERIANTHIUM quinquepartitum, lacinii lanceolatis, concavis, rubro punctatis, corollâ brevioribus, fig. 1, 2, 10.	CALYX: a PERIANTHIUM deeply divided into five segments, which are lanceolate, concave, dotted with red, and shorter than the corolla, fig. 1, 2, 10.
COROLLA rotata, quinquepartita, laciinis ovatis, erectis, acutiusculis, carneis, venis saturatioribus ratis, fig. 3, 4.	COROLLA wheel-shaped, deeply divided into five segments, which are ovate, upright, a little pointed, of a pale red, striped with veins of a deeper colour, fig. 3, 4.
STAMINA: FILAMENTA quinque, alba, pilosissima, pilis albis, suberectis, articulatis; ANTERÆ ovatae, flavæ, fig. 5, 6, 7, 8.	STAMINA: five FILAMENTS, of a white colour and very hairy, the hairs upright, white also and jointed; ANTERÆ ovate and of a yellow colour, fig. 5, 6, 7, 8.
PISTILLUM: GERMEN subrotundum; STYLUS subulatus, antheris paulo longior; STIGMA simplex, fig. 9.	PISTILLUM: GERMEN roundish; STYLE tapering, a little longer than the Antheræ; STIGMA simple, fig. 9.
PERICARPIUM: CAPSULA circumscissa, magnitudine semenis coriandri, rotunda, pallida, laevis, fig. 11, 12.	SEED-VESSEL: a round CAPSULE, smooth, of a pale colour, about the size of a coriander seed, splitting horizontally in the middle, fig. 11, 12.
SEMINA plurima, subangulata, apice truncata, fig. 13, 14.	SEEDS numerous, somewhat angular and cut off at top, fig. 13, 14.

If the horizontal division of the capsule, joined to the hairiness of the filaments, be the characters which constitute the genus *Anagallis*, this plant is undoubtedly with much propriety referred to it by LINNÆUS, and removed from that of *Lysimachia* with which it was before connected; for it not only has an evident *Capsula circumscissa*, but the hairs of the filaments are also jointed, in which they resemble those of the *Anagallis arvensis* heretofore described and figured in the beginning of this work—producing ripe capsules but sparingly, and growing in situations not always the easiest of access, it is no wonder that these discoveries should be of modern date.

Mr. HUDSON, in the second edition of his *Flora Anglica*, without assigning any reasons, chooses to continue it a *Lysimachia*.

It is a very common plant on bogs, indeed there is scarce a bog of any extent on which it is not to be found; the boggy part of Shirley-Common affords it most abundantly; it flowers in the months of June, July, and August, and towards the end of the latter ripens its capsules.

VINCA MINOR. SMALL PERIWINKLE.

VINCA. Linn. Gen. Pl. PENTANDRIA MONOGYNIA.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

VINCA minor caulis procumbentibus, foliis lanceolato ovatis, floribus pedunculatis. Linn. Syst. Vegetab. p. 209. Sp. Pl. 304.

PERVINCA caulis procumbentibus, foliis ovato lanceolatis, petiolis unifloris. Haller Hist. 572.

CLEMATIS daphnoides minor. Bauh. Pin. 301.

VINCA PERVINCA minor. Ger. emac. 894.

VINCA PERVINCA vulgaris. Parkins. 380. Raii Syn. p. 268. Periwinkle.

Hudson Fl. Angl. ed. 2. p. 91. Lightfoot Fl. Scot. p. 147.

RADIX perennis, repens, fibrosa.

CAULES floriferi erecti, simplices, dodrantales, aut pedales, in sepibus etiam, vepris sustentati ad altitudinem humanam quandoque evenuntur, debiles, teretes, glabri, utrinque sulco obsolete notati, peractâ florescentiâ humi repent.

FOLIA opposita, petiolata, petiolis foliis quaduplo brevioribus, sempervirentia, ligustrina, ovato-lanceolata, glabra, margine integerima, nuda; in caulis floriferis laetius virentia.

CAULIS FLORIFERUS unicum aut duos flores, etiam plures aliquando producit, cæruleos, purpureos, pulchellos, ocello albo, ad plenitudinem pronos.

PEDUNCULI uniflori, axillares, alterni, suberecti, foliis duplo fere longiores, teretes, glabri, purpurascentes.

CALYX: PERIANTHIUM quinquepartitum, tubo corollæ triplo brevior, persistens, laciniis erectis, acutis, glabris, fig. 1.

COROLLA monopetala, hypocrateiformis; *Tubus* inferne cylindraceus, superne latior, lineis quinque insculptus, rigidulus, externe nitidus, interne villosus; *Limbus* horizontalis, quinquepartitus, laciniis apici tubi adnatâ, extrorsum latioribus, oblique truncatis.

STAMINA: FILAMENTA quinque, brevissima, inflexa, retroflexa, superne dilatata; ANTERÆ membranaceæ, obtusæ, incurvæ, pilosæ, margine utrinque fariniferæ, fig. 9, 10.

PISTILLUM: GERMINA duo, subrotunda, compressa corpusculis duobus ad latera, nitidis, longitudine germinum; STYLUS obverse conicus, longitudine staminum; STIGMATA duo, inferius orbiculatum, planum, margine viscidum, superius capitatum, pilosum, albissimum, fig. 3, 4, 5, 6, 7, 11.

ROOT perennial, creeping, and fibrous.

STALKS producing the flowers, are upright, simple, from nine inches to a foot in height, and sometimes in hedges supported by the bushes, they are raised to the height of six feet, weak, round, smooth, marked on each side with a groove faintly impressed, when out of bloom creeping on the ground.

LEAVES opposite, standing on footstalks four times shorter than the leaves themselves, evergreen, somewhat like those of Privet, ovate and pointed, smooth and shining, the edge perfectly entire and naked, those on the flowering stalks of the most lively colour.

THE FLOWERING STALK produces one or two handsome flowers, sometimes more of a blue or purple colour, with a white eye, and much disposed to be double.

FLOWER-STALKS supporting one flower, axillary, alternate, nearly upright, almost twice the length of the leaves, round, smooth, and shining.

CALYX: a PERIANTHIUM deeply divided into five segments, three times shorter than the corolla, permanent, the segments upright, pointed and smooth, fig. 1.

COROLLA monopetalous, salver-shaped: *Tube* below cylindrical, above spreading, having five grooves, somewhat rigid, externally shining, internally villous; *Limb* horizontal, deeply divided into five segments, which appear to grow to the top of the tube, externally broadest and cut off obliquely.

STAMINA: five FILAMENTS, very short, bent in, and afterwards back again, dilated above; ANTERÆ membranous, blunt, bent in, hairy, producing its farina on each side of the edge.

PISTILLUM: GERMINA two, roundish, somewhat flattened at the sides by two shining corpuscles of the length of the germina; STYLE inversely conical, the length of the stamena: STIGMATA two, the lowermost orbicular, flat, and clammy on the edge, the uppermost forming a little tuft of very white hairs.

Whoever looks into the tube of this flower with any degree of attention, must be struck with the wisdom shewn in the formation of the parts contained within it; in all the plants I have seen I do not recollect any greater instance of care taken to preserve the tender parts of the fructification, each Anthera is terminated by a membrane which bends over at top, and the membranes of all the Antheræ closing together, effectually seclude every thing which might injure the parts of the fructification below them, distinguished not less by the delicacy than the singularity of their structure. The filaments in their shape somewhat resemble a note of interrogation, the Antheræ in their structure are very similar to those of the violet, and open inwardly in the same manner: the style, which in most flowers is broadest at bottom, is here slenderest; they are two in number, but so closely united, that, without a magnifier, the division is scarce to be perceived; the stigmata, according to Linnaeus, are two in number; it is most probable, however, that the lowermost, which is flat with a glutinous edge, and which forms a kind of ring round the styles, is the true stigma; the top is a little elevated above the stigma, and appears like a round white ball, which, when magnified, is found to consist of a number of hairs diverging from one centre, in the microscope it is a very pleasing sight; the ripe seed vessel of this plant I have not been able to discover; they are most probably rarely produced.

This species of Periwinkle varies much in the colour of its blossoms, which are sometimes purple, sometimes of a pale blue colour, and sometimes white; in the gardens it is also sold with divers sorts of variegated foliage and double blossoms.

At the foot of a sheltered hedge exposed to the morning sun, it flourishes very much, especially if the soil be moist, and affords a very pretty ornamental flower in the spring months, nor is it so fugacious as many, but will continue in blossom a month or six weeks.

It may probably be found wild in divers places about London; as yet, however, I have noticed it in one spot only, viz. in the hedge of a field on the left hand side of Lordship-Lane near Dulwich, where it had every appearance of being in a wild state.



CHENOPODIUM BONUS HENRICUS. GOOD KING HENRY.

CHENOPODIUM. *Lin. Gen. Pl. PENTANDRIA DIGYNIA.*

Cal. 5 phyllus, 5 gonus, Cor. o. Sem. 1. lenticulare, superum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

CHENOPODIUM *Bonus Henricus* foliis triangulari sagittatis integerrimis, spicis compositis aphyllis axillaribus. *Lin. Syft. Vegetab. p. 216. Sp. Pl. p. 318. Fl. Suecic. n. 214.*

CHENOPODIUM foliis triangularibus, undulatis, integerrimis, subtus farinosis. *Haller. hift. n. 1578.*

CHENOPODIUM *Bonus Henricus. Scopoli. Fl. Carn. 278.*

LAPATHUM unctuosum folio triangulo. *Bauh. Pin. 115.*

BLITUM perenne. *Bonus Henricus dictum. Bonus Henricus J. B. II. 965. Ger. emac. 329.*

LAPATHUM unctuosum. *Park. 1225. Raii Syn. p. 156. Common English Mercury, or All-good. Hudson Fl. Angl. ed. 2. p. 104. Lightfoot Fl. Scot. p. 147.*

RADIX perennis, ramosa.

CAULIS pedalis, ad sesquipedalem, erectus, ad basin teres, laevis, superne striato-angulatus, farinâ diaphanâ adspersus, ramosus.

FOLIA petiolata, alterna, sagittato-triangularia, laevia, subtus venosa, pallidiora, et farinosa, subundulata, integerrima.

SPICA florum terminalis, lutescens, conica, nuda, pulverulenta, inferne composita, superne glomerata, cylindrica.

CALYX: PERIANTHIUM monophyllum, quinquepartitum, lacinis subcuneiformibus, concavis, margine membranaceis, apice dentato erosis, fig. 1.

COROLLA nulla.

STAMINA: FILAMENTA quinque, subulata, calyce paulo longiora; ANTERÆ subrotundæ, didymæ, flavæ, fig. 2.

PISTILLUM: GERMEN ovatum, compressum; STYLUS nullus; STIGMA bipartitum, tripartitum, aut etiam quadripartitum, laciinis acuminatis, albidis, patentibus, fig. 4.

PERICARPIUM nullum, calyx continens semen unicum, majuscum, subreniforme, compressum, calycem excedens, epidermide tenui obtectum, fig. 5.

FLORES FEMINEI, plurimi, intra hermaphroditos.

ROOT perennial and branched.

STALK from a foot to a foot and a half in height, at bottom round and smooth, upwards finely grooved, and somewhat angular, covered with transparent powdery globules, and branched.

LEAVES standing on footstalks, alternate, triangularly arrow-shaped, smooth, underneath veiny, of a paler colour and mealy, somewhat waved, and entire at the edge.

SPIKE of flowers terminal, yellowish, conical, naked, mealy, below branched, above clustered and cylindrical.

CALYX: a PERIANTHIUM of one leaf, deeply divided into five segments, which are somewhat wedge-shaped, concave, membranous at the edge, and jagged at top, fig. 1.

COROLLA wanting.

STAMINA: five FILAMENTS tapering, a little longer than the calyx; ANTERÆ roundish, double, and yellow, fig. 2.

PISTILLUM: GERMEN ovate, flattened; STYLE wanting; STIGMA divided to the base into two, three, or four segments, which run out to a point, are of a whitish colour, and spreading, fig. 4.

SEED-VESSEL wanting, the calyx containing a single seed, large, somewhat kidney-shaped, flattened, exceeding the calyx, and covered with a fine skin, fig. 5.

FEMALE FLOWERS numerous among the hermaphrodite ones.

Several plants of the Orach and Goosefoot kind are gathered while young and tender by the poorer sort of people to supply the place of Spinach and other greens, one of them is the present plant, whose excellence as a pot-herb seems not to be so generally known as it deserves; at Boston in Lincolnshire, and probably in many other places in the kingdom, they are sensible of its value, it is there universally cultivated, every one possessing the least spot of ground has his plantation of English Mercury; by them it is considered as superior to Spinach, and always preferred to it, yet, strange to tell! this useful herb is unknown to the greatest Herb-market in the world, Covent-Garden.

To produce this desirable plant in its greatest perfection, sow the seed about March on a deep loamy soil prepared as for Asparagus, let the seedlings continue to grow till Autumn, about the middle of September, taking advantage of a wet season, set them out on a bed similar to that on which they were sown, about a foot apart, keep them clear of weeds, and the ensuing Spring and Summer the plant will afford an abundant crop, the young shoots with their leaves and tops are to be cut as they spring up, and being a perennial plant it will continue thus plentifully to produce for a great number of years; in the winter the bed is to be covered with dung, which should be raked off as the Spring advances, when the earth around the roots is carefully to be dug or forked up.

As a medicine this herb is ranked among the emollients, but rarely made use of in practice; the leaves are applied by the common people for healing slight wounds, cleansing old ulcers, and other like purposes.

It grows in uncultivated places, by road-sides, and particularly in the environs of Farm-yards, like most of the same genus appearing to be fond of dung; it produces both flowers and seeds from May to August.

From all the other Chenopodiums it differs in having a perennial root.

The name by which it is most commonly called is that of *Mercury*, a name which tends to confound it with the other Mercuries (*Mercurialis annua*, and *perennis*) and which it were better if possible to get rid of by using the old botanic name of *Good King Henry*.



Chenopodium Bonus Henricus.



Stachys chilensis.

SAMBUCUS EBULUS. DWARF-ELDER.

SAMBUCUS. *Linn. Gen. Pl. PENTANDRIA TRIGYNIA.*

Cal. 5-partitus. Cor. 5-fida. Bacca. 3-sperma.

Raii Syn. Gen. ARBORES ET FRUTICES.

SAMBUCUS *Ebulus cymis tripartitis, stipulis foliaceis, caule herbaceo.* *Linn. Syst. Veg. p. 244.*
Sp. Pl. p. 385. Fl. Suec. n. 266.

SAMBUCUS *herbacea; floribus umbellatis.* *Haller Hist. n. 671.*

SAMBUCUS *Ebulus.* *Scopoli Fl. Carn. n. 371.*

SAMBUCUS *humilis seu Ebulus.* *Bauh. Pin. 456.*

EBULUS *five Sambucus humilis.* *Ger. emac. 1426. Park. 209. Raii Syn. 461. Dwarf-Elder,*
Walwort, or Danewort.

Hudson Fl. Angl. ed. 2. p. 130.

Lightfoot Fl. Scot. p. 171.

RADIX repens, vix eradicanda.

CAULIS *orgyalis, herbaceus, teretiusculus, glaber, undique striato-sulcatus, subgeniculatus: geniculis purpureis, superne ramosus, ramis oppositis, erectis.*

FOLIA *opposita, pinnata, quadrijuga, seu sexjuga, cum impari, stipulata seu exstipulata, foliolis ovato-lanceolatis, basi inæqualibus, serratis, venosis, supra glabris, subtus pubescenti-scabris, pallidioribus, inferioribus sæpe loba-to-incisis.*

STIPULÆ *quaternæ, petiolatae, subcordatae, serratae, superioribus sæpe recurvatis.*

CORYMBUS *terminalis, tripartitus, ramis subnudis, exterioribus teretiusculis, intermedio compresso; compositus e cymis pluribus pedunculatis, nudis; floribus pedicellatis.*

CALYX: PERIANTHUM *monophyllum, superum, quinquedentatum, dentibus ovato-acutis, erectis, purpureis, fig. 1.*

COROLLA *monopetala, rotata, quinquepartita, lacinias ovato-acutis, concavas, reflexis, externe ad apicem purpurascensibus et rugosis, fig. 2.*

STAMINA: FILAMENTA *quinq, suberecta, teretiuscula, crassa, rugosa, alba, longitudine corollæ; ANTHERÆ primum rubicundæ, magnæ, didymæ, fibi invicem paululum remotæ, parallelæ, oblongæ, supra sulcatæ, demum nigricantes, fig. 3.*

PISTILLUM: GERMEN *inferum, subovatum, obsolete angulatum, glabrum; STYLUS nullus; STIGMATA tria, subreniformia, colorata, glutinosa, fig. 4, 5.*

ROOT creeping, scarce to be eradicated.

STALK six feet high, herbaceous, roundish, smooth, channelled, joints somewhat enlarged, purplish, branched above, the branches opposite and upright.

LEAVES opposite, pinnated, having four or six pair of pinnæ with an odd one at the extremity, with or without stipulæ, the pinnæ or small leaves ovato-lanceolate, unequal at the base, serrated, veiny, smooth above, downy with a slight roughness underneath, and whiter, the lowermost often cut into lobes.

STIPULÆ growing in fours, standing on foot-stalks, somewhat heart-shaped, serrated, the uppermost often bent back.

CORYMBUS terminal, divided into three branches, which are somewhat naked, the outer ones roundish, the middle one flattened, composed of numerous cymæ, standing on partial foot-stalks, blossoms also furnished with foot-stalks.

CALYX: a PERIANTHUM of one leaf, placed above the germen, having five teeth, which are short, broad, pointed, upright, and purple, fig. 1.

COROLLA monopetalous, wheel-shaped, divided into five segments, which are ovate, pointed, hollow, and turned back, externally at the tip purplish and wrinkled, fig. 2.

STAMINA: five FILAMENTS, nearly upright, roundish, thick, wrinkled, white, the length of the corolla; ANTHERÆ first reddish, large, double, at a little distance from each other, parallel, oblong, grooved above, lastly becoming of a blackish colour, fig. 3.

PISTILLUM: GERMEN placed below the corolla, somewhat ovate, faintly angular, and smooth; STYLE none, STIGMATA three, somewhat kidney-shaped, coloured, and glutinous, fig. 4, 5.

The leaves, roots, and bark of the Dwarf-Elder, have a nauseous, sharp, bitter taste, and a kind of acrid ungrateful smell; they are all strong cathartics, and as such are recommended in Dropsies, and other cases where medicines of that kind are indicated. The bark of the root is said to be the strongest, the leaves the weakest; but they are all too churlish medicines for general use: they sometimes evacuate violently upwards, almost always nauseate the stomach and occasion great uneasiness of the bowels; by boiling they become like the other draughts milder and more safe in their operation; the berries of this plant are likewise purgative, but less virulent than the other parts: a rob prepared from them may be given to the quantity of an ounce as a cathartic; and in smaller ones as an aperient and deobstruent in chronic disorders. In this last intention it is said by HALLER to be frequently used in Switzerland in the dose of a dram. LEWIS's *Diss. p. 137.*

In most Physic Gardens this plant is cultivated, but is rarely met with wild about London; I have observed it in two places only, the one in a hedge which surrounds a part of Mr. BEAUFOY's Garden, Cuper's-Bridge, Lambeth-Marsh, the other in a lane leading down to Upton, Essex, by the garden-wall of the late Dr. FOTHERGILL.

It differs from the common Elder in many respects, particularly in being herbaceous, and in having a root which creeps and is very troublesome in gardens, its leaves also are narrower with more numerous pinnæ attached to the mid-rib; the lower pinnæ of which are subject to a singular variation as is shewn in the figure.

Not less does it differ in its fructification, as will appear from the description to which the reader is referred. It flowers in June and July, and but rarely ripens its berries

LINUM CATHARTICUM. PURGING FLAX.

LINUM Linn. Gen. Pl. PENTANDRIA PENTAGYNIA. Cal. 6 phyllus. Pet. 5. Caps. 5. valvis, 10 locularis. Sem. folitaria.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

LINUM catharticum foliis oppositis, ovato-lanceolatis, caule dichotomo, corollis acutis. Linn. Syft. Vegetab. p. 250. Sp. plant. p. 401. Fl. Suecic. p. 100.

LINUM foliis conjugatis, ovatis, calycibus aristatis, patulis, lanceolatis. Haller Hist. n. 839.

LINUM catharticum. Scopoli. Fl. Carn. n. 389.

LINUM pratense flosculis exiguis. Bauhin. Pin. 214.

LINUM sylvestre catharticum. Ger. emac. 560. Parkinson 1336. Raii Syn. p. 362. purging or wild Dwarf-Flax or Mill-Mountain.

Lightfoot Fl. Scot. p. 174.

Hudson Fl. Angl. ed. 2. p. 134.

RADIX annua, fibrosa.

ROOT annual, and fibrous.

CAULIS palmaris aut dodrantalis, erexitus, teres, lœvis, superne ramosus.

STALK from three to nine inches high, upright, round, smooth, branched at top.

FOLIA opposita, elliptica, suberecta, lœvia, integer-rima, glauca, in summis ramis alterna, lanceolata.

LEAVES opposite, elliptical, nearly upright, smooth, perfectly entire, glaucous, on the tops of the branches alternate, and lanceolate.

FLORES albi, ante anthesin penduli.

FLOWERS white, before they blow pendulous.

CALYX: PERIANTHUM pentaphyllum, persistens, foliolis lanceolatis, erectis, carinatis, fig. 1.

CALYX: a PERIANTHUM of five leaves and permanent, the leaves lanceolate, and upright, with a prominent midrib, fig. 1.

COROLLA pentapetala, petalis Calyce duplo longioribus, patentibus, ovatis, acutis, prope basi leviter cohærentibus, trinervibus, unguibus flavis, fig. 2.

COROLLA composed of five petals, which are twice the length of the Calyx, spreading, ovate, and pointed, slightly uniting at the base, having three ribs and yellow claws, fig. 2.

STAMINA: FILAMENTA quinque, æqualia, subulata, basi latiora, subcoalescentia; ANTHÈRE subrotundæ, flavæ, fig. 3.

STAMINA: five FILAMENTS of equal length, tapering, broadest and slightly uniting at bottom; ANTHÈRE roundish and yellow, fig. 3.

PISTILLUM: GER MEN subovatum, angulatum; ST YLI quinque, longitudine staminum; STIGMATA rotunda, flava, fig. 4, 5.

PISTILLUM: GER MEN angular; STYLES five, the length of the Stamina; STIGMATA roundish, and yellow, fig. 4, 5.

PERICARPIUM: CAPSULA globosa, angulata, decimlocularis, quinquevalvis, Calyce tecta, fig. 6.

SEED-VESSEL: a round, angular CAPSULE, with ten cavities and five valves, covered with the Calyx, fig. 6.

SEMINA solitaria, ovata, planiuscula, flava, nitida, fig. 7.

SEEDS single, oval, flattish, yellow, and shining, fig. 7.

This small and delicate species of Flax is a very common plant throughout the kingdom on hilly situations, particularly where the soil is chalky; it is also sometimes found in meadows.

It flowers in June, July, and August.

An infusion in water or whey of a handful of the fresh leaves, or a dram of them in substance when dried, are said to purge without inconvenience. Lewis Disp. p. 168.





Fritillaria Meleagris.

FRITILLARIA MELEAGRIS. COMMON FRITILLARY.

FRITILLARIA. Linn. Gen. Pl. HEXANDRIA MONOGYNIA.

Cor. 6. petala, campanulata, supra unguis cavitate nectarifera.
Stam. longitudine corollæ.

Raii Syn. Gen. 26. HERBÆ RADICE BULBOSA PRÆDITÆ.

FRITILLARIA Meleagris foliis omnibus alternis, caule unifloro. Linn. Syst. Veg. p. 269. Sp. Pl. p. 436. Fl. Suec. n. 283.

FRITILLARIA caule paucifloro foliis caulinis gramineis alternis. Haller Hist. n. 1235.

FRITILLARIA Meleagris. Scopoli Fl. Carn. n. 405.

FRITILLARIA præcox purpurea variegata. Bauh. Pin. 64.

FRITILLARIA vulgaris. Park. Parad. 40.

FRITILLARIA variegata. Ger. emac. 149. Raii Hist. p. 1106. Hudson Fl. Engl. ed. 2. p. 144.

RADIX: bulbus magnitudine nucis avellanæ, solidus, albus, subrotundus, in plures separabilis, bulbo precedentis anni, marcido, rugoso in thecâ quasi inclusus.	ROOT: a bulb about the size of a hazel nut, solid, white, roundish, divisible into several, enclosed by the withered wrinkly bulb of the preceding year as in a case.
CAULIS spithameus et altior, erectus, teres, simplex, lœvis, glaucus, haud infrequeenter purpurascens.	STALK from half a foot to a foot in height, upright, round, simple, glaucous, and not unfrequently purplish.
FOLIA caulina quatuor, aut quinque, alterna, semi-amplexicaulia, sublinearia, inferne rotundata, superne concava, subtortuosa, glauca.	LEAVES of the stalk about four or five in number, alternate, half embracing the stalk, somewhat linear, round on the under, and hollow on the upper side, somewhat twisted and glaucous.
FLOS in summitate caulis unicus, magnus, pendulus, primum ovato-pyramidalis, tum campanulatus.	FLOWER: a single blossom on the top of the stalk, large, pendulous, first somewhat pyramidal, and afterwards bell-shaped.
CALYX nullus.	CALYX wanting.
COROLLA: PETALA sex, ovato-oblonga, æqualia, albo et purpureo pulchre tessellata, bafi gibbosa, fig. 1.	COROLLA: six PETALS of an oblong ovate shape, equal, beautifully chequered with purple and white, and gibbous at the base, fig. 1.
NECTARIUM: fovea sublinearis, virescens, prope basin cujusvis petali unde gibbi externi, fig. 1.	NECTARY a narrow cavity of a greenish colour, near the base of each petal, whence the external protuberances, fig. 1.
STAMINA: FILAMENTA sex, subulata, lœvia, albida, germe duplo longiora; ANTHERÆ oblongæ, subcompressæ, quadrifulcatæ, mucrone virescente instructæ, demissæ polline duplo breviores; POLLEN flavum, fig. 2, 3.	STAMINA: six FILAMENTS, tapering, smooth, whitish, twice the length of the germen; ANTHERÆ oblong, flattish, with four grooves, and a greenish point at the top of each, becoming shorter by one half on the shedding of the POLLEN, which is of a yellow colour, fig. 2, 3.
PISTILLUM: GERMEN trigonum, viride; STYLUS teres, pubescens, superne paululum incrassatus, trifidus, laciinis teretibus, divergentibus, interne et externe ad lentem canaliculatis; STIGMATA simplicia, villosa, fig. 4, 5.	PISTILLUM: GERMEN scarce manifestly three corner'd, of a green colour; the STYLE round, downy, a little thickened above, divided into three segments, which are round, diverging, and marked both internally and externally with a groove, visible with a magnifier; STIGMATA simple, villous, fig. 4, 5.

The *Fritillaria Meleagris* is one of those plants which have been discovered to be indigenous to this country, since the time of Mr. RAY; Mr. BLACKSTONE is I believe the first who mentions it as growing in *Mawde-Fields* near *Risip-Common*, *Middlesex*, plentifully, and in which place it had been observed in his time for near sixty years; Mr. HUDSON describes it as growing in the meadows betwixt *Mortlake* and *Kew*, also near *Enfield*; Mr. CULLUM, a very accurate and ingenious Botanist at *Bury*, *St. Edmunds*, has sent me plants which he found plentifully in a wild state near that place, and this spring, I received information that it was found wild in a wood belonging to Mrs. WILSON, of *Bromley* in *Kent*.

With these several authorities we may, I think with propriety, conclude that it is a real native of this Island; it is found in similar situations abroad, in *sylvis et palustribus*, vid. JACQUIN Fl. Austr. V. 5. Ap. p. 45.

The blossoms before they are fully expanded, bear some resemblance to a snake's head, whence they are called by the country people in some places *Snake's Heads*, also chequer'd *Daffodil* and *Tulip*.

If the season be mild they flower in the beginning of April, and are out of bloom in a short time.

It is only regarded as an ornamental plant, and as such has been cultivated in gardens, in which many beautiful varieties are to be met with.



Rumex acutus.

RUMEX ACUTUS. SHARP-POINTED DOCK.

RUMEX Linn. Gen. HEXANDRIA TRIGYNIA.

Cal. 3-phylus. Petala 3-conniventia. Semen triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX acutus floribus hermaphroditis; valvulis dentatis graniferis, foliis cordato oblongis acuminatis.
Linn. Syst. Veg. p. 285. Sp. Pl. p. 478. Fl. Suec. n. 316.

LAPATHUM petiolo latescente, foliis lanceolatis, calyce serrato. Haller Hist. n. 1591.

LAPATHUM acutum. Scopoli p. 292.

LAPATHUM folio acuto plano. Bauh. Pin. 115.

LAPATHUM acutum. Ger. emac. 388.

LAPATHUM acutum seu Oxylapathum. J. Bauh. II. 983.

LAPATHUM acutum majus. Park. 1224. Raii Syn. p. 132. Sharp-Pointed Dock.

Hudson Fl. Angl. ed. 2. p. 155. Lightfoot Fl. Scot. p. 188.

RADIX perennis, crassitie digitii minimi aut major, in terram profunde penetrans nec facile extrahenda, simplex in junioribus, in adultis ramosa, foris e flavo fusca, cortice interne flavescente, medulla albida.

CAULIS bipedalis ad tripedalem, crassitie pennae annulariæ, teres, striatus, rubens, ramosus, superne flexuosus, rigidus, geniculis stipulis obsoletis tectis.

RAMI cauli similes, patentes, longiusculi, inferne foliosi.

FOLIA inferiora oblongo-ovata, acuta, basi subcordata, plana, longitudine unciarum quinque, latitudine duarum, margine crenulato-crispa, subtus fibris plurimis minute reticulata, caulinæ sèpius undulata, attamen multo minus quam in rumice crispo.

FLORES parvi, numerosi, circa ramulos semiverticillatim dispositi, idque alterne, penduli.

PEDUNCULI filiformes, ad basin geniculati.

CALYX: PERIANTHUM triphyllum, foliolis minimis, subsetaceis, concavis, rigidulis, persistentibus.

COROLLA Stamina et Pistillum, cum nullam notam præbeant huic speciei peculiarem, ad valvulas semen maturum continentes præterimus, quibus certe et facile distinguitur species.

VALVULÆ minimæ si ad valvulas aliorum Rumaticum nostratum comparantur, calyce duplo longiores, oblongæ, obtusifusculæ, integerrimæ, unicâ idque exteriore semper granifera, reliquis plerumque nudis, ex apice granulæ per medium valvulae decurrit linea prominula et utrinque venæ aliquot ope lentis solummodo distingui possunt; Granulæ primum oblongæ, demum rotundæ, prominulæ, in umbrosis pallidæ, in apricis ruberrimæ.

SEMEN unicum, triquetrum, flavescens.

Fig. 1. Calyx. 2. Corolla. 3. Stamina. 4. Pistillum. 5. Valvulae cum granulis immaturis. 6. Semen.

ROOT perennial, the thickness of the little finger, or larger, penetrating deeply into the earth, and not easily drawn out, in the young ones simple, in the full-grown ones branched, externally of a yellowish brown colour, the inside of the bark yellowish, the pith whitish.

STALK from two to three feet high, the thickness of a goose-quill, round, striated, reddish, branched, on the upper part crooked, rigid, the joints covered with obsolete stipulæ.

BRANCHES like the stalk, spreading, longish, on the lower part leafy.

LEAVES at the bottom of the stalk of an oblong, oval shape, pointed, at the base somewhat heart-shaped, flat, about five inches in length and two in breadth, the edge notched, and somewhat curled, underneath finely reticulated with numerous fibres, those on the stalk usually waved, but much less so than in the curled dock.

FLOWERS small, numerous, disposed about the branches in half whirls, and that alternately, hanging down.

FLOWER-STALKS filiform, with a joint at the base. CALYX: a PERIANTHUM composed of three leaves, which are very small, narrow, pointed, hollow, somewhat rigid and permanent.

COROLLA Stamina and Pistillum having nothing in them very peculiar, we pass on to the valves containing the ripe seed, which afford the principal marks characterizing this species.

VALVES very small if compared with the valves of our other Docks, twice the length of the calyx, oblong, bluntish, entire at the edge, one and that the outer one always bearing a granule, the others generally naked, from the top of the granule through the middle of the valve runs a prominent line, on each side of which, by the help of a glass only, may be discerned a few veins; Granules at first oblong, finally becoming round and prominent, in the shade pallid, in exposed situations very red.

SEED single, three-cornered, and yellowish.

Fig. 1. The Calyx. 2. the Corolla. 3. the Stamina. 4. the Pistillum. 5. the Valves with the granules unripe. 6. the Seed.

The *Rumex acutus*, like the *Rumex maritimus*, is a plant by no means well understood, either by Botanists or Simpliciers, both of which in their turn mistake it for some other species; this I should not assert, had I not seen frequent instances of such mistakes: fortunately it has a character which need only to be pointed out to make this species as obvious as any plant in nature, and this is the smallness of its seed-valves, which are uniformly at least thrice as small as those of any of our other Docks; the species to which the *Rumex acutus* at first sight has the greatest resemblance, are the *crispus*, the *pulcher*, and the *maritimus*, the first of these is characterized by having its leaves very much curled, its seed-valves almost round, entire, and very large, so that they nearly hide the branches; in this the leaves are much less curled, the seed-valves, although entire at the edge are altogether as small as in the *crispus* they are large, and instead of being roundish are of an oblong shape, the whole plant is more fine and delicate and the branches more spreading; from the *pulcher* and *maritimus*, it is at once distinguished, by having the edges of its valves entire, which in those are toothed.

The Sharp-Pointed Dock is not confined to any particular place of growth, it is found not only in woods, hedge-rows, and hedges, but also by the sides of rivers and roads; in fields and meadows it is less frequent; Camberwell-Grove is at present a good habitat for it; it flowers in June and July. The *Rumex sanguineus* differs in no respect from the present plant, but in the colour of its veins, on this account I consider it merely as its variety.

It is the more necessary that the Dock here figured should be thus pointed out, as it is an officinal plant, and considered as useful in the cure of scorbutic and cutaneous disorders, both exhibited internally, and applied externally in ointments, cataplasms, and fomentations.

RUMEX OBTUSIFOLIUS. BROAD LEAVED DOCK.

RUMEX *Linnæi Gen. Pl. HEXANDRIA TRIGYNIA.*

Cal. 3 phyllus. Petala 3 conniventia. Sem. 1 triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX *obtusifolius* floribus hermaphroditis, valvulis dentatis graniferis, foliis cordato-oblongis obtusis pubescentibus. *Linn. Syst. Vegetab. p. 285. Sp. Pl. 478. Fl. Suec. n. 315.*

LAPATHUM foliis ovatis, circa petiolum emarginatis, floribus dense paniculatis, dentatis, verrucosis, *Haller. Hist. Helv. n. 1592.*

LAPATHUM vulgare folio obtuso. *J. B. II. 984.*

LAPATHUM sylvestre, folio subrotundo. *Bauh. Pin. 15.*

LAPATHUM sylvestre, folio minus acuto. *Ger. emac. 388.*

LAPATHUM sylvestre vulgatius. *Park. 1225.*

Raii Syn. p. 141. The most common broad leaved wild Dock.

Hudson Fl. Angl. ed. 2. p. 155. Lightfoot Fl. Scot. p. 189.

RADIX perennis, in terram recte descendens, fusiformis, crassitie digitii intermedii, foris fordide fusca, intus flavescentia, in junioribus simplex, in annosis multiplex, ramosa.

CAULIS tripedalis, erectus, ad basin usque ramosus, teres, laevis, superne scabriuscus, sulcatus, solidus, geniculatus, geniculis stipulis obsoletis, marcescentibus vestitis.

FOLIA radicalia, cordato-ovata, petiolata, obtusiuscula, subtus venosa, nervo medio saepius ruberrimo, caulina acuta, subundulata.

PETIOLI subtus rotundati, superne plano-concavi.

RACEMI florum axillares, suberecti, nudiusculi.

CALYX: PERIANTHIUM triphyllum, foliolis lanceolato-linearibus, concavis, margine membranaceis, corollâ brevioribus.

COROLLA: PETALA tria, ovata, obtusiuscula, patentia, margine membranacea.

STAMINA: FILAMENTA sex, brevissima, alba; ANTHERÆ sublineares, flavæ, apice bifidæ.

PISTILLUM: GERMEN trigonum; STYLI tres, capillares, reflexi, inter rimas petalorum conniventium exserti; STIGMATA laciniata.

PERICARPIUM nullum: Corolla trivalvis, connivens, includens semen; valvulis ovato-acutis, venosis, margine denticulatis, unica grana- fera, fig. 1, 2, 3.

SEmen unicum, triquetrum, fuscum.

ROOT perennial, running deeply into the earth, tapering, the thickness of the middle finger, on the outside of a dirty brown colour, internally yellowish, in the young ones simple, in the old ones divided into many branches.

STALK three feet high, upright, branched down to the bottom, round, smooth, upwards slightly round, grooved, solid, and jointed, joints covered with obsolete, withered stipulæ.

LEAVES next the root of an heart shaped oval form, standing on footstalks, bluntish, veiny underneath, the middle generally very red, those on the stalk pointed and somewhat waved.

LEAF-STALKS round underneath, above plano concave.

FLOWER-BRANCHES, proceeding from the alæ of the leaves, nearly upright, and furnished with but few leaves.

CALYX: a PERIANTHIUM of three leaves, which are of a shape betwixt lanceolate and linear, hollow, membranous at the edges, and shorter than the corolla.

COROLLA: three oval PETALS, bluntish, spreading, membranous at the edges.

STAMINA: six Filaments, very short and white; ANTHERÆ somewhat linear, yellow and forked at top.

PISTILLUM: GERMEN three cornered, STYLES three, very fine, turning back, and projecting from betwixt the closed petals.

SEED-VESSEL none: the Corolla, which is composed of three valves, closes and contains the seed: the valves are oval, pointed, and veiny, toothed on the edge, one of them bearing a granule, fig. 1, 2, 3.

SEED single, three cornered and brown, fig. 4.

Of all our English Docks, this perhaps may be said to be the most common, and considered as a weed the most pernicious, being the largest and most spreading, except the Water Dock, and refused by cattle in general; hence the Husbandman who wishes to see his grounds neat and clean has a rooted enmity to it, and for its destruction an instrument, called a Docking Iron, has been invented by some one more ingenious than the rest, which is frequently made use of: the purpose of this instrument is to draw the plant up by the root, from an idea, that if it was cut down ever so close, while any part of the root remained, it would grow again; but this idea has perhaps been too hastily assumed, frequent mowing most certainly destroys it, and frequent spudding it is presumed would have the same effect, but unless it be done carefully, and at stated periods, little good is to be expected.

In all sorts of cultivated ground, in farm-yards, courts, by the sides of ditches, and elsewhere, we find this species most abundantly; it flowers at the latter end of June, and ripens its seed in July and August.

Our present plant is subject to as little variety as any of the Docks, its broad bottom leaves readily distinguish it, and these, though they may differ somewhat in size according as the soil is more or less luxuriant, vary but little in their shape; in general the younger the plant the more obtuse are its radical leaves.





Rumex maritimus

RUMEX MARITIMUS. SMALL WATER DOCK.

RUMEX Linn. Gen. Pl. HEXANDRIA TRIGYNIA.

Cal. 3. phyllus. Petala 3. conniventia. Sem. 1. triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX maritimus floribus hermaphroditis: valvulis dentatis graniferis, foliis linearibus. Linn.

Syft. Vegetab. p. 285. Sp. Pl. 478. Fl. Suecic. n. 313.

LAPATHUM petiolis latescentibus, foliis longe lanceolatis, floribus verticillatis verrucosis. Haller Hift. n. 1590.

LAPATHUM aquaticum, angustissime acuminato folio. Boc. mus. 2. p. 142. t. 115.

LAPATHUM aureum glomerulis densis. Pet. Herb. T. 2. fig. 8.

ANTHOXANTHON. J. B. 11. 988. angustifolium polyspermon. Merret. Pin.

LAPATHUM aureum. Pet. herb. t. 2. f. 7. longo angustoque folio, Anthoxantho plurimo accedens, verticillis rarioribus caulem cingentibus, semine majori. Raii Syn. p. 142. Golden Dock.

Hudson Fl. Angl. ed. 2. p. 155.

Lightfoot Fl. Scot. p. 118.

RADIX perennis, fusiformis, foris ex rubo fusca, intus ruberrima, sapore adstringente, et ingrato.

CAULIS bi aut tripedalis, ramosus, rubicundus, sulcatus, scabriuscus.

FOLIA radicalia longe petiolata, dodrantalia aut pedalia, oblongo lanceolata, basi paululum angustata, e viridi cæruleo-scentia, planiuscula, margine undulato-crenata, superiora lineari-lanceolata, superne fere avenia, plerumque fursum curvata.

FLORES saepius flavescentes, circa caulem in densis et numerosis glomerulis verticillatim dispositi.

CALYX: PERIANTHUM triphyllum, foliolis lanceolatis, erectis, concavis, paululum incurvis.

COROLLA: PETALA tria, ovato-lanceolata, viridia, margine prope basin duobus aut tribus dentibus setaceis instructa, granifera, granulis, adulis, oblongis, tumidis, majusculis, fig. 1, 2.

STAMINA: FILAMENTA sex, capillaria, brevissima; ANTHERAÆ oblongæ, erectæ, didymæ, flavæ.

PISTILLUM: GERMEN trigonum; STYLI tres, capillares, inter rimas petalorum conniventia exserti; STIGMATA laciniata.

PERICARPIUM nullum.

SEmen unicum, triquetrum, nitidum, corollâ inclusum, fig. 3.

ROOT perennial and tapering, externally of a reddish brown, internally of a bright red colour, its taste astringent and unpleasant.

STALK from two to three feet high, branched, of a reddish colour, grooved, and slightly rough.

LEAVES next the root standing on long footstalks, oblong and lanceolate, a little narrowed at the base, of a blueish green colour, flattish, but slightly waved and notched on the edge, the top leaves of a shape betwixt linear and lanceolate, having on the upper side scarce any appearance of veins, and usually bent upwards.

FLOWERS mostly of a yellowish colour, placed around the stalk in numerous thick whirls.

CALYX: a PERIANTHUM of three leaves, which are lanceolate, upright, hollow, and bent a little inwards.

COROLLA: three PETALS; oval and pointed, of a green colour, the edge near the bottom furnished with two or three fine, long teeth, the valves when full grown producing grains which are oblong, tumid and rather large. fig. 1, 2.

STAMINA: six Filaments very fine, short; ANTHERAÆ oblong, upright, double, and yellow.

PISTILLUM: GERMEN three cornered; STYLES three, very slender, projecting from betwixt the junctures of the closed petals, STIGMATA jagged.

SEED-VESSEL none.

SEED single, three-cornered, shining, contained within the closed corolla, fig. 3.

Of all the different species of Docks which this country produces, this seems to have been the least understood; yet are its characteristic marks not less striking, nor its varieties more remarkable than any of the other species.

That our plant is the *Rumex maritimus* of *Linnæus* no one can doubt that reads his description in the *Flora Suecica*; the character of the *radix rubra*, so peculiar to it, which is given in the *Systema Vegetabilium*, is an additional confirmation of it.

The three species of *Lapathum*, viz. n. 4, 5, 10, added to those of *RAY* by *DILLENIUS*, in the third edition of the *Synopsis* and marked with an asterisk are doubtless to be referred to this plant, and considered only as some of its varieties.

The name of *maritimus* seems but ill applied, as it is by no means confined in its growth to the Sea shore, the term *palustris*, which Mr. *HUDSON* has given to a species which I profess myself totally ignorant of, would perhaps be more suitable for it.

The plant here figured grows in the greatest plenty in the neighbourhood of my Garden, St. George's Fields, so that I have had frequent opportunities of observing it in all its states, its most striking character when in flower or seed is the number and narrowness of the leaves on its branches; when viewed more closely, we are struck with the number and length of the teeth on the edges of the seed valves, which valves are frequently though not always of a yellowish colour and furnished with remarkably large and long grains; if any doubt remains respecting the species, the root on being cut across exhibits a beautiful red colour equal to any carmine, and which is a character that I have hitherto always found to be constant to this species.

The natural situation of the *Rumex maritimus* is a moist one; thus we find it on the edges of wet ditches and rivulets, tho' not unfrequently in pastures or drier ground, on the former, particularly if the situation be sheltered, and the soil luxuriant, it will grow to the height of three or four feet, having radical leaves a foot long and three inches broad, which when young assume a somewhat glaucous appearance, in the latter it seldom grows more than a foot high, and then its radical leaves are about six inches long, and one inch or somewhat more broad (outlines of both these leaves are represented on the plate) but in neither of these situations does it lose its character above specified.

It is not only in the neighbourhood of St. George's Fields that I have noticed this species, but in similar situations in many places around London, and I doubt not but it is a very common plant in many parts of England.

It flowers in July, August, and September; I remember once to have seen the leaves having red veins like those of the *Rumex sanguineus*.

It is one of those Docks which are the least noxious to the Farmer; the roots I have been informed are frequently dug up and sold for those of the sharp pointed Dock.



Epilobium montanum.

EPILOBIUM MONTANUM. WOOD WILLOW-HERB.

EPILOBIUM. *Linn. Gen. Pl. OCTANDRIA MONOGYNIA.*

*Calyx quadrifidus. Petala quatuor. Capsula oblonga, infera.
Semina papposa.*

Raii Syn. Gen. 22. HERBÆ VASCULIFERÆ FLORE TETRAPÉTALO ANOMALÆ.

EPILOBIUM foliis oppositis, ovatis, dentatis. *Linn. Syst. Veg. p. 296. Fl. Suec. n. 329.*

EPILOBIUM foliis ovato-lanceolatis, glabris, dentatis. *Haller Hist. n. 996.*

CHAMAENERION montanum. *Scopoli Fl. Carn. p. 270.*

LYSIMACHIA filiformis glabra major. *Bauh. Pin. 245.*

LYSIMACHIA filiformis major. *Park. 548.*

LYSIMACHIA campestris. *Ger. emac. 478. Raii Hist. p. 861.* The greater smooth-leaved coddled Willow-Herb, or Loofe-Strife. *Syn.*

Hudson Fl. Angl. ed. 2. p. 4.

Lightfoot Fl. Scot. p. 198.

RADIX	perennis, sublignosa, fibrosa, gemmulis ruberimis superne instructa.	ROOT	perennial, somewhat woody and fibrous, on its upper part furnished with little buds of a bright red colour.
CAULIS	pedalis ad tripedalem, erectus, rubicundus, teres, subpubescens, superne ramosus, saepe vero simplex.	STALKS	from one to three feet high, upright, of a red colour, round, scarce perceptibly downy, branched above, but often single.
RAMI	oppositi.	BRANCHES	opposite.
FOLIA	opposita, pedicellis brevissimis basi connatis, insidentia, ovato acuta, argute dentata, superne glabra, inferne pallidiora, venosa, hirsutula, imis saepe ruberrimis.	LEAVES	opposite, sitting on very short foot-stalks, whose bases unite, ovate and pointed, sharply toothed on the edges, on the upper side smooth, on the under side of a paler colour, veiny and very slightly hairy, the bottom ones often of a bright red colour.
CALYX:	PERIANTHIUM superum, tetraphyllum, foliolis lanceolatis, nervo medio conspicuo, fig. 1.	CALYX:	a PERIANTHIUM placed above the germen, composed of four narrow pointed leaves, in which the midrib is conspicuous, fig. 1.
COROLLA:	PETALA quatuor, obcordata, profunde emarginata, pallide purpurea, calyce longiora, patentia, fig. 2.	COROLLA:	four PETALS inversely heart-shaped, deeply notched, of a pale purple colour, longer than the calyx and spreading, fig. 2.
STAMINA:	FILAMENTA octo, subulata, alba, quorum quatuor alterna breviora, ANTHÆ flavescentes, fig. 3.	STAMINA:	eight FILAMENTS, tapering, of a white colour, four of which are alternately shorter; ANTHÆ yellowish, fig. 3.
PISTILLUM:	GERMEN tetragonum, inferum, prælongum, fulcatum; STYLUS albus, longitudine staminum, apice paululum incrassatus; STIGMA quadrifidum, album, lacinias patentibus, non vero revolutis, fig. 4, 5.	PISTILLUM:	GERMEN four corner'd, placed beneath the calyx, very long and grooved; STYLE white, the length of the stamens, thickened a little at top; STIGMA divided into four segments, white, the segments spreading but not rolled back, fig. 4, 5.
SEMINA	minima, papposa, fig. 6.	SEEDS	very small and downy, fig. 6.

Most of the Willow-Herbs that we have already figured, have grown in wet situations, this rather delights in woods, hedge-rows, shady lanes, and hedges, sometimes it is also found on walls in courts and areas; it flowers from June to August.

We sometimes find it having three or four leaves at each joint, a variety to which most of this family is subject.

S E D U M T E L E P H I U M O R P I N E.

SEDUM. *Linn. Gen. Pl. DECANDRIA PENTAGYNIA.*

Cal. 5-fidus. Cor. 5-petala. Squamæ nectariferæ 5 ad basin germinis. Caps. 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEDUM foliis planiusculis ferratis, corymbo folioso, caule erecto. *Linn. Synt. Veg. p. 358. Sp. Pl. 616. Fl. Suec. n. 400.*

SEDUM androgynum foliis confertis, ferratis, floribus dense umbellatis. *Haller Hist. 954.*

SEDUM Telephium. *Scopoli Fl. Carn. p. 323.*

TELEPHIUM vulgare. *Bauh. Pin. 287.*

ANACAMPSEROS, vulgo Faba crassa. *J. Bauhin III. 681.*

TELEPHIUM seu crassula major vulgaris. *Park. 726.*

CRASSULA seu Faba inversa. *Ger. 416. Raii. Syn. p. 269. Orpine or Live-long.*

Hudson. Fl. Angl. ed. 2. p. 195.

RADIX perennis, tuberosa.

CAULES plurimi simul enascuntur, pedales, bipedales et ultra, erecti, simplices, teretes, solidi, rubicundi, et saepe rubro punctati.

FOLIA sparsa, conferta, erecta, sessilia, ovata, dentata idque varie, glabra, carnosa, glauca.

FLORES in summis caulis et ramulis (in quos summi caules dividuntur) in umbellas densas digesti, saturate purpurei, nobiscum rarissime albi.

CALYX: PERIANTHIUM minimum, carnosum, quinq- quefidum, laciinis acutis, fig. 1.

COROLLA: PETALA quinque, lanceolata, acumina- ta, plana, superne purpurea, subtus albentia, fig. 2.

STAMINA: FILAMENTA decem, subulata, longitu- dine corollæ, ANTERÆ subrotundæ, pur- purascentes, fig. 3.

PISTILLUM: GERMINA quinque, oblonga; definen- tia in stylos tenuiores, coloratos; STIGMATA minima, fig. 4.

PERICARPIUM: CAPSULÆ quinque, acuminatæ, erectæ, fig. 5.

SEMINA plurima, minima.

ROOT perennial and tuberous.

STALKS many, growing up together, from one to two feet high, and upwards, upright, unbranched, round, solid, reddish, and often dotted with red.

LEAVES placed on the stalk so as nearly to cover it, in no regular order, upright, sessile, ovate, indented and that variously, smooth, fleshy, and of a blueish green colour.

FLOWERS placed on the tops of the stalks and branches (into which the tops of the stalks divide) in close umbells, of a deep purple colour, very rarely white with us.

CALYX: a PERIANTHIUM very minute, and fleshy, the segments pointed, fig. 1.

COROLLA: five lanceolate petals, running out to a long point, flat, purple above, and whitish underneath, fig. 2.

STAMINA: ten FILAMENTS tapering, the length of the corolla; ANTERÆ roundish, and some- what purple, fig. 3.

PISTILLUM: five GERMINA, of an oblong shape, terminating in five slender, coloured styles; STIGMATA very minute, fig. 4.

SEED-VESSEL: five acuminated, upright CAP- SULES, fig. 5.

SEEDS numerous and very small.

Of our English *Stonecrops*, this is the only one that has flat leaves, and consequently is distinguished with the utmost facility; it partakes however of the fleshy nature of the others.

It is a beautiful plant both in its foliage and flowers, and being easily cultivated, is met with in most gardens, where it will often grow a yard high.

It is said to vary in its leaves and blossoms, the former being sometimes found entire at the edge, and the latter of a white colour.

I have found it wild in many places about *London*, but most plentifully in the vicinity of *Charlton* and *Shooter's Hill*; it grows among the herbage on the confines of woods and flowers in July and August.

LINNÆUS informs us that the Caterpillar of the *Phalæna alpicola* feeds on its leaves.





Sedum dasypetalum

Simsen-Souch

SEDUM DASYPHYLLUM. THICK-LEAVED STONECROP.

SEDUM Lin. Gen. Pl. DECANDRIA PENTAGYNIA.

Cal. 5-fidus. Cor. 5-petala. Squamæ nectariferæ 5 ad basin germinis.
Caps. 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEDUM dasypodium foliis oppositis ovatis obtusis carnosis, caule infimo, floribus sparsis. Lin.
Syst. Vegetab. p. 358. Spec. Plant. 618.

SEDUM foliis conicis, obtusis, glaucis, reticulatis; caule ramoso viscidio. Haller Hist. n. 961.

SEDUM dasypodium. Scopoli Fl. Carn. n. 555.

SEDUM minus circinato folio. Bauhin Pin. 283.

SEDUM foliis cordato-ovatis compressis saepius oppositis, floribus sparsis. Sauv. Monsp. 8.

SEDUM foliis semiglobosis subovatis sessilibus quadrifariam imbricatis. Wachend. ultr. 391.

AIZOON dasypodium. Dalech. Hist. 1133.

Raii Syn. ed. 3. p. 271.

Hudson Fl. Angl. 172. ed. 2. p. 197.

PLANTA perennis.

The PLANT is perennial.

CAULES plurimi, triunciales et ultra, teretes, debiles, viscosi, simplices, erecti, basi repentes.

STALKS numerous, about three inches high, round, weak, clammy, simple, upright, and creeping at bottom.

FOLIA pro ratione plantæ magna, plerumque opposita, cordato-ovata, adnata, carnea, glauca, interne planiuscula, externe convexa, punctata, saepe rubore quasi reticulata, circa medium caulis majora, inferiora, interne excavata.

LEAVES in proportion to the plant, large, generally opposite, of an heart-shaped oval figure, growing to the stalk, fleshy, of a bluish green colour, flattish on the inside, and convex on the outside, dotted, frequently veined with red, largest about the middle of the stalk, the lowermost hollow on the inside.

PEDUNCULI ramosi, viscidii, priusquam flores appetiuntur nutantes.

FLOWER-STALKS branched, clammy, before the flowers open hanging down.

FLORES intus albi, externe rubentes.

FLOWERS white on the inside, externally reddish.

CALYX: PERIANTHIUM sexpartitum, parvum, lacinias ovatis, carnosis viscidis, fig. 1. parum auct.

CALYX: a PERIANTHIUM divided into six segments, small, the segments oval, fleshy, and viscid, fig. 1. a little magnified.

COROLLA: PETALA sex, ovato-acuta, plana, patentia, calyce triplo longiora, carinata, fig. 2. magn. nat.

COROLLA: six PETALS, oval and pointed, flat, spreading, three times the length of the calyx, midrib projecting, fig. 2. natural size.

NECTARIA sex, singulum glandula minima flava singulo germini ad basin extrorsum posita, fig. 5.

NECTARIES six, each a small yellow gland, placed externally at the bottom of each germen, fig. 5.

STAMINA: FILAMENTA plerumque duodecim, subulata, longitudine corolla: ANTERÆ primum subrotundæ, rubræ, demum compressæ: POLLEN flavum, fig. 3.

STAMINA: FILAMENTS most commonly twelve, tapering, the length of the corolla: ANTERÆ, first roundish, and of a red colour, lastly flattened: the POLLEN yellow, fig. 3.

PISTILLUM: GERMINA sex, oblonga, desinentia in STYLOS tenuiores: STIGMATA simplicia, recurvata, fig. 4.

PISTILLUM: six GERMINA, oblong, terminating in slender STYLES: STIGMATA simple, and bending down, fig. 4.

PERICARPIUM: CAPSULÆ sex, pallide fuscæ, introrsum dehiscentes.

SEED-VESSEL: six CAPSULES of a pale brown colour, opening internally.

SEMINA minima, flavescentia.

SEEDS very minute, and yellowish.

Such persons as are fond of decorating the rock-work of their gardens, cannot select one better adapted to the purpose than the present species of Stonecrop. It grows without any trouble, in any aspect, multiplies very much by young shoots, and looks beautiful throughout the year. Indeed it is strange that it has not yet made its way more universally into gardens.

I have frequently noticed it on the walls about town. It grows particularly in great abundance on a wall near Chelsea-Hospital, on the left-hand side of the horse-road, on turning the corner out of Paradise-Row; likewise on a wall on the left-hand side of the lane leading from Kensington Gravel-Pits to Acton; and elsewhere.

Its thick white leaves readily distinguish it from every other species of Stonecrop.

Botanists have differed widely in the descriptions of these, as will appear from a perusal of the Synonyms.

It flowers in June; and has generally one additional part more throughout the whole of the fructification than the *Sedum acre*, and other Stonecrops.



AGROSTEMA GITHAGO. COCKLE.

AGROSTEMA. *Linn. Gen. Pl. DECANDRIA PENTAGYNYIA.*

Cal. 1-phyllo, coriaceus. Petala 5 unguiculata: Limbo obtuso, indiviso. Cap. 1-locularis.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

AGROSTEMA *Githago hirsuta, calycibus corollam æquantibus, petalis integris nudis.* *Linn. Syst. Veg. p. 361. Sp. Pl. 624. Fl. Suec. n. 407.*

LYCHNIS *calycibus longissime caudatis.* *Haller Hist. 926.*

LYCHNIS *Githago.* *Scopoli Fl. Carn. n. 527.*

LYCHNIS *segetum major.* *Bauh. Pin. 204.*

PSEUDO-MELANTHIUM. *Ger. emac. 1087.*

LYCHNOIDES *segetum sive Nigellastrum.* *Park. 632. Raii Syn. 338. Cockle:*

Hudson Fl. Angl. ed. 2. p. 198.

Lightfoot Fl. Scot. p. 238.

Œder Fl. Dan. t. 576.

RADIX annua.

CAULIS erectus, bipedalis, teres, fistulosus, hirsutus, superne ramosus.

FOLIA oblongo-lanceolata, carinata, basi connata, utrinque hirsuta, pilis ad basin folio longioribus.

FLORES solitarii, speciosi, purpurei.

CALYX: PERIANTHUM monophyllum, quinquefidum, profunde sulcatum, angulosum, pilosum, laciniis lanceolatis, subnudis, carinatis, corollâ longioribus.

COROLLA: PETALA quinque, magna, speciosa, purpurea, obcordata, basi albida, venis paucis saturate viridibus interrupte notatis; *Unguis* sublinearis, longitudine fere limbi, fig. 1.

STAMINA: FILAMENTA decem, subulata, quinque ad basin petalorum inserta, quinque seniora intra petala locata: ANTHÈRE pallide purpureæ, subsagittatæ, fig. 2, 3.

PISTILLUM: GERMIN subrotundo-conicum, viride, glabrum: STYLI quinque, filiformes, albidi, pilosi, erecti, apicibus paululum reflexi; STIGMATA simplicia, fig. 4, 5.

PERICARPIUM: CAPSULA magnitudine fere glandis, calyce exsiccatæ tectum, ore quinquedentato, lineis decem elevatis notatum, fig. 6.

SEMINA plurima, majuscula, angulata, eleganter exasperata, fig. 7.

ROOT annual.

STALK upright, about two feet high, round, hollow, hirsute, branched at top.

LEAVES of an oblong lanceolate shape, keeled, uniting at the base, hairy on both sides, the hairs at the base of the leaves longest.

FLOWERS standing singly on the tops of the stalks showy and purple.

CALYX: a PERIANTHUM of one leaf, divided into five segments, of a hard substance, deeply grooved, angular and hairy, the segments lanceolate, slightly hairy, with a prominent midrib, and longer than the corolla.

COROLLA: five PETALS, large, showy, of a purple colour, and inversely heart-shaped, the base whitish, marked with a few interrupted veins of a deep green colour; Claw somewhat linear, almost the length of the limb, fig. 1.

STAMINA: ten FILAMENTS, tapering, five inserted into the base of the petals, and five later ones placed betwixt the petals; ANTHÈRE of a pale purple colour, and somewhat arrow-shaped, fig. 2, 3.

PISTILLUM: GERMIN of a roundish conical shape, smooth, and of a green colour; STYLES five, thread-shaped, whitish, hairy, upright, the tips bending a little back; STIGMATA simple, fig. 4, 5.

SEED-VESSEL: a CAPSULE almost the size of an acorn, covered with its dried calyx, having ten ribs, the mouth splitting into five teeth fig. 6.

SEEDS numerous, largish, angular, with a surface like shagreen, fig. 7.

The Cockle is a very common plant in most Corn-fields about London and elsewhere; it flowers in June and July.

Like the red Poppy it contributes to ornament our fields, but is rarely found in gardens.

A Miller informed me he never wished to see any of it among the corn he ground, as it had a very great tendency to clog his mill-stones.

The seeds being large and mealy, probably afford food to several sorts of birds

Its medical virtues, highly extolled by former writers, are disregarded in the present practice.



Sylphrum Salicaria.

LYTHRUM SALICARIA. PURPLE-SPIKED LOOSE-STRIKE.

LYTHRUM *Lin. Gen. Pl. DODECANDRIA MONOGYNIA.*

Cal. 12 fidus. Petala 6. calyci inserta. Caps. 2. locularis, polysperma.

Raii. Syn. Gen. 25. HERBÆ HEXAPETALÆ ET POLYPETALÆ VASCULIFERÆ.

LYTHRUM *Salicaria* foliis oppositis cordato lanceolatis floribus spicatis dodecandris. *Lin. Syst. Vegetab. p. 371. Spec. plant. 640. Fl. Suec. n. 422.*

SALICARIA foliis lanceolatis, subhirsutis, floribus spicatis. *Haller. hist. 854.*

LYTHRUM *Salicaria. Scopoli Fl. Carn. n. 565. Lysimachia spicata purpurea. Bauh. Pin. 246.*

SALICARIA vulgaris purpurea foliis oblongis. *Tourn. Inst. Raii Syn. p. 367. Purple spiked Willow-herb, or Loose-strife.*

LYSIMACHIA purpurea *Ger. emac. 476. Parkinson 546. Hudson. Fl. Engl. ed. 2. p. 206. Lightfoot, Fl. Scot. p. 206.*

RADIX perennis, crassa, ramosa, sublignosa, in latum extensa.

CAULIS bipedalis ad tripedalem, erectus, inferne glaber, tetragonus, superne pubescens, pentagonus: angulis acutis, membranaceis, scabris, ramosus.

RAMI superiores sparsi; inferiores oppositi, tetragoni, scabri, minutim pubescentes, erecti, breviusculi, frequentes.

FOLIA sessilia, amplexicaulia, lanceolata, acuta, trinervia, supra glabra, subtus minutim pubescentia, scabriuscula, venosa, margine scabra, patentia; inferiora opposita, superiora sparsa, ramea opposita.

SPICÆ terminales, cylindricæ, e glomeribus florum compositæ, glomeribus remotiusculis, circiter octofloris, bracteâ fulcitis.

BRACTEÆ glomerum solitariæ, ovatæ, longius acutæ, subtus villosæ, calycibus longiores, subpurpureæ; florum linearis-subulatæ, parviusculæ.

CALYX: PERIANTHUM tubulatum, turbinato-cylindricum, striatum, hirsutum: ore truncato, 12 fido: lacinias purpurascens: quarum sex alternæ, subulatæ, hirsutæ, erectæ, sex aliæ alternæ parvæ, ovato acutiusculæ, inflexæ, concavæ, apice minutim barbatæ, *fig. 1.*

COROLLA purpurea: PETALA 6, cuneiformi-oblonga, obtuso rotundata, erecta, calyce longiora, margine calycis intra lacinias calycis longiores inserta, patentia. Petala ante eruptionem calycis tubo intrusa sunt et recondita; hinc postmodum erumpunt et quasi e calyce extrahuntur, *fig. 2.*

STAMINA: Filamenta 12, subulata, albida, calycis parieti intra tubum inserta, quorum sex longiora tubo calycis paulo longiora; 6 breviora intra tubum recondita; ANTERÆ inferiores ovatæ, luteæ, incumbentes, superiores purpureæ, *fig. 3.*

PISTILLUM: GERMEN superum, ovatum, acutum, utrinque sulcatum, glabrum, viridescens; STYLUS cylindricus, albus, corollâ vix longior; STIGMA capitatum, *fig. 4.*

PERICARPIUM: CAPSULA oblonga, tecta, bilocularis, *fig. 5, 6.*

SEMINA plurima, minima, *fig. 7.*

ROOT perennial, thick, branched, somewhat woody, widely extended.

STALK from two to three feet high, upright, below smooth, four-cornered; angles sharp, membranous and rough; branched.

BRANCHES: the upper ones placed without any order; the lower ones opposite, four-cornered, rough, and slightly downy, upright, shortish, and numerous.

LEAVES sessile, embracing the stalk, lanceolate, pointed; about three inches long, above smooth, underneath slightly downy, roughish, and veiny, spreading; the lower ones opposite, the upper ones placed without any regular order, those of the branches opposite.

SPIKES terminal, cylindrical, composed of clusters of flowers, which are placed at a little distance from each other, and consist of about eight flowers, supported by a floral leaf.

FLORAL-LEAVES of the clusters solitary, oval with a long point, underneath villous, longer than the flower-cups, and purplish, those of the flowers small, nearly linear, and running out to a point.

CALYX: a PERIANTHUM tubular, cylindrical but widest at top, striated, hirsute, the mouth as if cut off, divided into twelve purplish segments, six of which run out to a long point, are hirsute and upright, the other six which are alternate with the preceding six are small, ovate, pointed, bend inward over the stump, are hollow and minutely bearded at top, *fig. 1.*

COROLLA purple. PETALS 6, of an oblong wedge shape, blunt at the extremity, upright and longer than the calyx, inserted into the edge of the calyx betwixt its longest segments, and spreading; the Petals, before they break out, are as it were thrust into and hid in the tube of the calyx, from whence they afterwards burst forth, and are as it were drawn out of the calyx, *fig. 2.*

STAMINA: 12 Filaments, tapering and whitish, inserted into the insides of the calyx, of which the six longest are somewhat longer than the tube of the calyx, and the six shortest hid within the tube; ANTERÆ ovate and incumbent, the lowermost yellow, the uppermost purple, *fig. 3.*

PISTILLUM: GERMEN above the calyx, ovate, pointed, with a groove on each side, smooth, greenish; STYLE cylindrical, white, scarce longer than the Corolla; STIGMA forming a little head.

SEED-VESSEL: an oblong Capsule, covered by the calyx, of two cavities, *fig. 5, 6.*

SEEDS numerous and very small, *fig. 7.*

The beautiful long spikes of purple flowers which this plant plentifully produces during the latter part of the Summer, render it a conspicuous ornament on the banks of rivers, ponds, ditches, &c. where it grows almost universally in this country; brought into the garden it flourishes without any trouble, and is a very proper plant to grace the shrubbery.

Its qualities appear to be of the astringent kind, hence it has been recommended by DE HAEN in long protracted Diarrhoeas and Dysenteries. *Vid. rat. med. part. 4. p. 195.*

It generally remains untouched by cattle; I have this year observed its leaves very much eaten by the Caterpillar of a *Tenthredo*.

The structure of the blossom is singularly curious, and will amply repay the botanist the trouble of dissecting it. I have noticed a variety with three leaves at a joint, in which the stalk was hexagonal.



Sempervivum lectorum

SEMPERVIVUM TECTORUM. HOUSELEEK.

SEMPERVIVUM Linn. Gen. Pl. DODECANDRIA DODECAGYNIA. Cal. 12. partitus Petala 12.
Capſulæ 12. polyspermæ.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEMPERVIVUM tectorum foliis ciliatis propaginibus patentibus. Linn. Syſt. Vegetab. p. 178. Sp. Pl. 664. Fl. Suec. n. 428.

SEMPERVIVUM rosulis glabris ciliatis, petalis conglutinatis, lanceolatis; hirsutis, quatuordenis. Haller Hift. n. 949.

SEDUM tectorum. Scopoli Fl. Carn. n. 529.

SEDUM majus vulgare. Bauhin. Pin. 283. Parkinson 730.

SEMPERVIVUM majus. Ger. emac. 510. Raii Syn. p. 269. Houseleek.

Hudson Flor. Angl. ed. 2. Lightfoot Fl. Scot. p. 251.

RADIX biennis, ramosa, plurimis fibrillis instructa. ROOT biennial, branched, and furnished with numerous fibres.

FOLIA radicalia in formam Rosæ plenæ disposita, sessilia, cuneiformia, plusquam pollicaria, carnosa, crassa, supra plana, subtus convexiuscula, utrinque glabra, inferne albida, margine ciliata, et sæpius rubore tincta, acuminata, erecta, exteriora majora, interiora sensim minora.

PROPAGINES longius petiolatæ, globosæ, magnitudine ovi columbini vel ultra, strobiliformes, imbricatae foliis erectis.

PETIOLI propaginum cylindrici, teretes, ferruginei, lanuginosi, longius exorrecti, nudi, e basi radicis prope folia,exeuntes.

SCAPUS dodrantalis aut pedalis, erectus, teres, lanuginosus, rubicundus, foliosus, apice ramosus, ramis floriferis patentibus, recurvis.

FLORES plurimi, conferti, erecti, secundi, carnei.

CALYX: PERIANTHUM plerumque duodecem fidum, laciniis lanceolatis, hirsutis, ciliatis, viscosis, apice purpureis.

COROLLA: PETALA duodecim et ultra, calyce duplo longiora, lanceolata, carnea.

STAMINA: FILAMENTA numero et figura maxime variantia, plerumque duodecim, subulato-tenuia; ANTHERÆ subrotundæ, purpureæ.

PISTILLUM: GERMINA duodecim in orbem posita, erecta, desinentia in STYLOS totidem patentes; STIGMATA acuta.

PERICARPIUM: CAPSULÆ oblongæ, compressæ, extrorsum acuminatæ, introrsum dehiscentes.

SEMINA plurima, subrotunda, parva.

LEAVES next the root disposed in the form of a full blown double rose, sessile, wedge-shaped, somewhat more than an inch long, fleshy, thick, above flat, on the under side a little convex, smooth on both sides, beneath whitish, the edges fringed with hairs, and generally tinged of a reddish colour, pointed, upright, the outer ones largest, the inner ones gradually smallest.

OFFSETTS standing on long footstalks, globular, the size of a pigeon's egg or larger, formed somewhat like the cone of a pine, the leaves laying one over another and upright.

FOOTSTALKS of the offsets cylindrical, round, iron-colour'd, slightly woolly, stretching out to a considerable length, naked, springing from the base of the root near the leaves.

FLOWERING-STEM from nine inches to a foot in height, upright, round, woolly, of a reddish colour, leafy, at top branched, the branches sustaining the flowers, spreading, and bending back.

FLOWERS numerous, crowded, upright, growing all one way, of a flesh colour.

CALYX: a PERIANTHUM divided usually into twelve segments, which are lanceolate, hirsute, edged with hairs, clammy, and purplish at top.

COROLLA: twelve or more PETALS twice the length of the calyx, lanceolate and flesh coloured.

STAMINA: FILAMENTS varying very much both in shape and number, generally fourteen, slender and tapering; ANTHERÆ roundish and purple.

PISTILLUM: twelve GERMINA placed in a circle, upright, terminating in the same number of spreading STYLES; STIGMATA pointed.

SEED-VESSEL: numerous oblong CAPSULES, flatten'd, outwardly terminating in a point, and opening inwardly.

SEEDS numerous, roundish and small.

Mr. RAY, in his *Synopsis*, and Mr. LIGHTFOOT, in his *Flora Scotica* doubt whether the Houseleek be originally a native of this country; however that be, it is now so common a plant on the house, or wall of every one that is in the least fond of plants, that we shall not apologize for introducing it among our London plants.

HALLER describes it among his *Switzerland* plants, and having gathered it on the Alps in its truly wild state, he enters very minutely into its description, and among other peculiarities he takes notice of the uncommon appearance which the filaments often assume, and which is indeed such an appearance as would much puzzle an inexperienced Botanist; the filaments as he truly observes are of two kinds, the one perfect and similar to the generality of filaments, the other even when young are evidently enlarged towards the end, and throw out from their substance little oblong white corpuscles like the eggs of some insect, which indeed I first took them to be, not having then looked into Haller, but on examining a great number of flowers at different stages of their growth, I found they were common to many filaments, and that those filaments which were thus enlarged were also more glutinous than the others, the antheræ on their extremities were somewhat imperfect, as the fructification proceeded towards maturity, the filaments continued to enlarge about the middle, while the top was drawn out to a kind of beak, indeed in this state they seem to partake more of the nature of the pistillum than of the filaments, and for such would be liable to be taken; on cutting them through they appeared hollow and contained some of the same corpuscles which were observable on the outsides of many of them, so that from their present appearance it was impossible to know that they were originally filaments, which may serve as a caution to students that in examining of flowers they should always begin with such as are not expanded. *Vid. 1, 2, 3, 4, 5, 6, 7, 8.*

Houseleek has been universally considered as a cooler; the leaves bruised, or its juice, have been applied to burns, spreading ulcerations, fissures of the tongue, the piles, inflammations of the eye, &c. the juice mixt with a little alum and honey is recommended for the thrush in children, and the leaves themselves are frequently applied to corns.

LINNÆUS informs us that this plant is a preservative to the coverings of the houses in Smoland; it certainly may with the least possible trouble be made quickly to cover the whole roof of a house, whether that roof consists of tiles, thatch, or wood, by flicking the offsets on with a little earth or cow dung; and if it should not be found to have the good effect here spoken of, which I am by no means inclined to doubt, it forms at least a very pretty ornament on barns, stables, out-houses, and walls, particularly in the month of July, when it flowers.



Fragaria sterilis.

FRAGARIA STERILIS. BARREN STRAWBERRY.

FRAGARIA. Linn. Gen. Pl. ICOSANDRIA POLYGYNIA.

Cal. 10-fidus. Petala-5. Receptaculum seminum ovatum, baccatum, deciduum.

Raii Syn. Gen. 25. HERBÆ SEMINE NUDO POLYSPERMÆ.

FRAGARIA sterilis caule decumbente, ramis floriferis laxis. Linn. Synt. Vegetab. p. 396. Sp. Pl. 709.

FRAGARIA caule prostrato, foliis ternatis retusis sericeis. Haller Hist. helv. 1113.

FRAGARIA sterilis. Bauh. Pin. 327.

FRAGARIA minime vesca. Park. 758.

FRAGARIA minime vesca seu sterilis. Ger. emac. 998.

FRAGARIA non fragifera, vel non vesca. J. B. 2. 395. Raii Syn. ed. 3. p. 254.

Hudson Fl. Agl. ed. 2. p. 222. Lightfoot Fl. Scot. p. 288.

RADIX perennis, nigricans, sublignosa.

CAULES plurimi, spithamei, procumbentes, crassi, suffruticosi, castanei, stipulis hirsutis tecti.

FOLIA e furculis annotinis prodeunt, ternata, obovata, ferrata, pilosa, sericea, subtus albida, petiolis valde pilosis.

STIPULÆ radicales, plurimæ, ovato-acuminatæ, membranaceæ.

PEDUNCULI plurimi, ascendentæ, teretes, pilosi, biflori, bracteâ trifoliata instructi.

FLORES albi, parvi.

CALYX: PERIANTHUM monophyllum, planum, semidecemfidum, fig. 3. ex laciniis, quinque ovato acuminata sunt inter petala, petalis paulo longiora, quinque lanceolata, petalis paulo breviora, omnibus pilosis, fig. 1.

COROLLA: PETALA quinque, alba, parva, subrotunda, patentia, remota, calyci inserta.

STAMINA: FILAMENTA viginti circiter, in orbem posita, subulata, alba, primum inflexa, demum erecta, corolla breviora; ANTHÆ flavæ, biloculares, fig. 4, 5.

PISTILLUM: GERMINA numerosa, minima, in capitulum collecta, subreniformia; STYLI simplices, lateri germinis inserti; STIGMATA simplicia, fig. 7, 8, 9.

RECEPTACULUM floris intra germina et filamenta glandulosum seu pulposum, villosum, minutum; fructus intra germina pilosum, fig. 6.

SEMINA plurima, exsucca, in capitulum collecta, e flavo fusca, appendiculo subviloso, fig. 10, 11.

ROOT perennial, blackish, and woody.

STALKS numerous, six or seven inches in length, procumbent, thick, somewhat shrubby, of a chestnut colour, and covered with hairy stipulae.

LEAVES grow out of the last year's shoots, three together, inversely ovate, sawed at the edges, hairy, silky, whitish underneath, standing on foot-stalks which are very hairy.

STIPULÆ next the root, numerous, ovate and pointed, of a membranous texture.

FLOWER-STALKS numerous, ascending, round, hairy, supporting two flowers, and furnished with a three-leaved bractea.

FLOWERS white and small.

CALYX: a PERIANTHUM of one leaf, flat, divided half way down into ten segments, fig. 3, of those, five which are betwixt the petals are ovate, with a long point, somewhat longer than the petals, fig. 1. five lanceolate, a little shorter than the petals, and all of them hairy, fig. 1.

COROLLA: five, white, small, roundish, spreading PETALS, remote from each other, and fixed to the calyx, fig. 2.

STAMINA: about twenty FILAMENTS, placed in a circle, tapering, white, at first bending inwards, afterwards upright, shorter than the corolla; ANTHÆ yellow, having two cavities, fig. 4, 5.

PISTILLUM: GERMINA numerous, minute, forming a little head, somewhat kidney-shaped; STYLES simple, inserted into the side of the germen; STIGMATA simple, fig. 7, 8, 9.

RECEPTACLE of the flower betwixt the germina and filaments glandular or pulpy, villous and of a scarlet colour, of the fruit betwixt the germina hairy, fig. 6.

SEEDS numerous, pulpless, forming a little head, of a yellowish brown colour, with an appendage to each somewhat villous, fig. 10, 11.

The name of Sterilis by which this species of Strawberry is distinguished, has not been given it because the plant does not produce perfect seed, but because it affords no eatable fruit; its leaves point it out as a Strawberry, but its fructification has a greater affinity with the Potentilla, betwixt which genus and the Strawberry, this plant indeed seems to be the link.

In all the woods about London, as also on some heaths, we find it in blossom as early as March, and in June it ripens its seed.



POTENTILLA ANSERINA. SILVER-WEED.

POTENTILLA. Linn. Gen. Pl. ICOSANDRIA POLYGYNIA.

Cal. 10. fidus. Petala 5. Sem. subrotunda, nuda, receptaculo parvo exsucce affixa.

Raii Syn. Gen. 25. HERBÆ SEMINE NUDO POLYSPERMÆ.

POTENTILLA Anserina foliis pinnatis ferratis, caule repente, pedunculis unifloris. Linn. Syft.

Veg. p. 396. Spec. Pl. p. 710. Fl. Suec. n. 452.

FRAGARIA caule repente, foliis pinnatis ferratis, subtus tomentosis, petiolis unifloris. Haller Hist. 1126.

POTENTILLA Anserina. Scopoli Fl. Carn. n. 615.

POTENTILLA. Bauh. Pin. 321. Park. 593.

ARGENTINA. Ger. emac. 993.

PENTAPHYLLOIDES Argentina dicta. Raii Syn. p. 256. Wild Tansy, Silver-Weed.

Hudson Fl. Angl. ed. 2. p. 222.

Lightfoot Fl. Scot. p. 268.

Oeder Fl. Dan. t. 544.

RADIX perennis, ramosa, extus nigro fusca seu albida pro ratione ætatis, fibrillosa, descendens.

ROOT perennial, branched, externally of a dark brown or whitish colour, according to its age, furnished with small fibres, and penetrating deep.

CAULES seu potius flagellæ, plures, in longum extensæ, teretes, geniculatae, rubicundæ, pubescentes, repentes.

STALKS or rather runners, several extended to a considerable length, round, jointed, reddish, downy, and creeping.

FOLIA subtus villosa, albido-cinerea, supra pubescens, viridia, saepe etiam villosa, cinerea, petiolata, pinnata cum impari: foliolis sessilibus, oppositis, ovalibus, inciso-ferratis; quorum inferiora sensim minora; radicalia longius petiolata, procumbentia.

LEAVES hoary on the under side, of a whitish ash-colour, on the upper side downy, and green, though sometimes also hoary and silvery, standing on foot-stalks, pinnated, with an odd one at the extremity; the small leaves sessile, opposite, oval, deeply cut in on the edge; the lowermost gradually the smallest; the radical ones standing on longer foot-stalks than the others and procumbent.

STIPULÆ parviusculæ, ovales, acutæ, in ipso petiolo communi inter paria foliorum, superne sessiles, oppositæ, integerrimæ, subtus pariter villosæ.

STIPULÆ small, oval, and pointed, placed on the common foot-stalk itself, betwixt each pair of the small leaves, above sessile, opposite, entire, underneath hoary also.

PETIOLI villosi, supra plani, basi vagina concava, membranacea, tenera, pubescente, in petiolum utrinque decurrente.

LEAF-STALKS villous, flat on the upper side, forming a sheath at the bottom, which is hollow, membranous, tender, downy, running down each side of the leaf-stalk.

VAGINÆ caulinæ, h. e stipulæ, ad genicula caulis solitariæ, apice bifidæ, saepe multifidæ, fentes foliolum oblongum dentatum.

SHEATHS of the stalks or rather the stipulæ of the runners, are placed singly at the joints, bifid and often multifid at top, bearing an oblong indented small leaf.

FLORES pedunculati, ex vaginis caulis stipulaceis, solitarii.

FLOWERS standing on foot-stalks, proceeding singly from the joints of the runners.

PEDUNCULI teretes, villosi, uniflori, erecti.

FLOWER-STALKS round, villous, upright, supporting one flower.

CALYX: PERIANTHIUM monophyllum, villosum, 10 fidum: laciniis ovatis, imbricatis, patenti reflexis; quarum 5 interiores integræ, acutiusculæ, basi lutescentes; exteriores 5 obtusiusculæ, incisæ, fig. 1.

CALYX: a PERIANTHIUM of one leaf, villous, divided into 10 segments, which are ovate, the edges laying one over the other, spreading, and somewhat turned back, the 5 innermost are entire, rather pointed, yellowish at the base, the outermost bluish and jagged, fig. 1.

PETALA quinque, lutea, ovata, obtusa, sessilia, calyci inferta, fig. 2.

PETALS five, of a yellowish colour, ovate, obtuse, sessile, twice the length of the calyx, very much expanded, and inserted into the calyx, fig. 2.

STAMINA: FILAMENTA plurima, subulata, lutea, calyci inserta, erecta; ANTERÆ cordatae, obtusaæ, erectæ, utrinque planæ, fig. 3.

STAMINA: numerous FILAMENTS, tapering, yellow, inserted into the calyx, upright; ANTERÆ heart-shaped, blunt, upright, flat on both sides, fig. 3.

PISTILLUM: GERMINA plurima, ovata, obtusa, alba, villo receptaculi circumdata; STYLI subulati, germinis lateri adnati, lutescentes, staminibus breviores, STIGMATA truncata, fig. 4. 5.

PISTILLUM: GERMINA numerous, ovate, obtuse, white, surrounded by the hairs of the receptacle; STYLES tapering, growing out of the side of the germen, of a yellowish colour, shorter than the stamens; STIGMATA truncated, fig. 4. 5.

RECEPTACULUM barbatum.

RECEPTACLE hairy.

Few plants render themselves more conspicuous by the whiteness of their leaves than the *Potentilla Anserina*, indeed its old name of *Argentina* was derived from this very circumstance; it must be remarked however that in this particular it is subject to much variation, the leaves being sometimes silvery on both sides, and sometimes entirely green, but it is most commonly found with the upper side of the leaves green, and the under side silvery; the more clayey the soil, the whiter the leaves are generally found to be.

It is a plant which thrives most in moist situations, especially if the soil be clayey, and the water apt to stagnate on it; in such situations it may be found almost every where about London, flowering from July to September.

RAY informs us on very respectable authority that the Boys about Settle in Yorkshire, call the roots of these plants by the name of *Moors*, and that in the winter season they dig them up and eat them, and that he himself had been a witness to their being turned up and greedily devoured by swine.—It deserves the consideration of the Farmer how far these animals may be rendered useful in this respect, not as to this plant only, but many others which are either noxious or useless.

Its medicinal virtues are wholly out of repute.



Papaver Rhæas.

PAPAVER RHŒAS. SMOOTH ROUND-HEADED POPPY.

PAPAVER. *Linn. Gen. Pl. POLYANDRIA MONOGYNIA.*

Cor. 4-petala. Cal. 2-phyllo. Capsula 1-locularis, sub stigmate persistente poris dehiscens.

Raii Syn. Gen. 22. HERBÆ VASCULIFERÆ FLORE TETRAPETALO ANOMALÆ.

PAPAVER *Rhœas* capsulis glabris globosus, caule piloso multifloro, foliis pinnatifidis incisis. *Linn.*
Syst. Veg. p. 407. Sp. Pl. p. 726. Fl. Suec. n. 468.

PAPAVER foliis semipinnatis hispidis fructu ovato glabro. *Haller Hist. n. 1064.*

PAPAVER *Rhœas*. *Scopoli Fl. Carn. n. 648.*

PAPAVER *erraticum majus*. *Baub. Pin. 171.*

PAPAVER *Rhœas*. *Ger. emac. 371.*

PAPAVER *erraticum Rhœas* sive *sylvestre*. *Park. 397.*

PAPAVER laciniato folio, capitulo breviore glabro annum *Rhœas* dictum. *Raii Syn. p. 308.*
Red Poppy or Corn-Rose.

Hudson Fl. Angl. ed. 2. p. 230.

Lightfoot Fl. Scot. p. 269.

RADIX annua, simplex, fibrosa.

CAULIS pedalis ad bipedalem, erectus, ramosus, teres, basi purpurascens, hispidulus, pilis basi bulbosus.

FOLIA sessilia, basi subvaginata, utrinque hirsuta, pinnatifida, incisa, lacinias seu foliolis inæqualiter dentato serratis, dentibus margine revolutis, apice callosis et spinula terminatis.

PEDUNCULI errecti, uniflori, teretes, hispidae, pilis patentibus.

CALYX: PERIANTHUM diphylum, ovatum, hispidulum, foliolis concavis, margine membranaceis, deciduis.

COROLLA: PETALA quatuor, magna, patentia, inæqualia, coccinea, ad basin maculâ nigrâ, nitidâ notata.

STAMINA: FILAMENTA numerosa, purpurea, capillaria; ANTERÆ subrotundæ, compressæ; POLLEN viride, fig. 1, 2.

PISTILLUM: GERMEN ovatum, truncatum; STYLUS nullus, STIGMA convexum, radiatum; radiis circiter decem purpureis, fig. 3.

PERICARPIUM: CAPSULA ovata, apice truncata, et crenata, lœvis, lineis elevatis tot quot stigmata notata, stigmate plano persistente crenato tecta, fig. 4.

SEMINA plurima, minima, ex atro-purpurascientia, fig. 5.

ROOT annual, simple, and fibrous.

STALK from one to two feet high, upright, branched, round, purplish at bottom, somewhat hispid, the hairs bulbous at the base.

LEAVES sessile, forming a kind of sheath at bottom, hairy on both sides, pinnatifid and jagged, the small leaves into which the large one is divided unequally toothed, or sawed, each tooth rolled back at the edge, callous at top, and terminated by a small spine.

FLOWER-STALK upright, each supporting one flower, round, hispid, the hairs projecting horizontally.

CALYX: a PERIANTHUM of two leaves, ovate, hispid, the leaves hollow, membranous on the edge and deciduous.

COROLLA: four petals, large, spreading, unequal, of a bright scarlet colour, marked at the base with a shining black spot.

STAMINA: FILAMENTS numerous, purple and very slender; ANTERÆ roundish, flattened: POLLEN green, fig. 1, 2.

PISTILLUM: GERMEN ovate, cut off at top; STYLE wanting; STIGMA convex and radiated, rays about ten of a purple colour, fig. 3.

SEED-VESSEL: shape of an egg cut off at top, where it is scolloped, smooth, marked with as many raised lines as there are stigmata, and covered with the stigma which is permanent, flat, and also scolloped on the edge, fig. 4.

SEEDS numerous, very minute, of a dark purple colour, fig. 5.

We have growing wild in the neighbourhood of London, four different species of Poppy that have some affinity both in their foliage and flowers to one another, viz. the *Papaver Rhœas*, smooth round-headed Poppy, *Papaver dubium*, smooth long-headed Poppy, *Papaver hybridum*, prickly round-headed Poppy, and *Papaver Argemone*, prickly long-headed Poppy; of these the first, which is here figured, is by far the most common; growing chiefly in Corn-fields, it has acquired generally the name of Corn Poppy, in some countries it is distinguished by the name of Red-Weed.

A Syrup made from an infusion of the flowers is used by the Apothecary, more for the sake of the beautiful colour it imparts to the medicine, than from its possessing any active principle; the Gardener is careful to cultivate its numerous varieties, while the Farmer is no less anxious to root it from his fields, in which it is often so predominant as to appear like the real crop.

Although a Corn-field be its most usual place of growth, it is nevertheless frequently found on dry banks and on walls, and according to such situations it varies extremely in its foliage, but constantly retains two of its striking characters, viz. the round or rather urn-shaped form of its Capsules, and the projecting hairs on the flowering stem; these always distinguish it from the *dubium*, to which it is very nearly allied.

It flowers from June to August.



Betonica officinalis

BETONICA OFFICINALIS. WOOD BETONY.

BETONICA Linn. Gen. Pl. DIDYNAMIA GYMNOSPERMIA. Cal. aristatus. Corollæ lab. super. adscendens, planiusculum. *Tubus cylindricus.*
Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

BETONICA officinalis spica interrupta, corollarum lacinia labii intermedia emarginata. Linn. Spec. Pl. p. 810. Fl. Suecic. n. 515.

BETONICA foliis petiolatis, imis cordatis, superioribus ovatis, crenatis, spica brevi, foliis insidente. Haller Hist. n. 264.

BETONICA officinalis. Scopoli Fl. Carniol. p. 422.

BETONICA purpurea. Bauhin Pin.

BETONICA vulgaris flore purpureo Parkins. p. 238. Ger. emac. 714. Raii Syn. p. 238. Wood-Betony. Hudson Fl. Angl. ed. 2.
Lightfoot Fl. Scot. p. 311.

RADIX perennis, crassitie minimi digiti, horizontalis, sublignosa, e luteo fusca, transversim rugosa, fibris plurimis albidis, tenacibus, fibrillofis, alte descendentibus instructa.

CAULIS pedalis aut ultra, erectus, plerumque simplex, in hortis ramosus, tetragonus, angulis obtusis, lateribus duobus magis excavatis, scabriusculus pilis rigidulis, deorsum versis, sub appressis, geniculatus, geniculis superne remotis.

FOLIA radicalia longe petiolata, oblongo-cordata, crenata, obtusa, venoso-rugosa, subnuda, undique minutim punctata, punctis excavatis, margine ciliata, caulinæ opposita, angustiora, potius ferrata quam crenata, reflexa, marginibus saepius revolutis.

FLORES purpurei, spicati.

SPICA terminalis, oblonga, e plurimis verticillis sessilibus, approximatis composita, inferioribus saepius remotis.

BRACTÆ plurimæ, verticillis subiectæ, lanceolatæ, calyce paulo breviores.

CALYX: PERIANTHUM tubulatum, interne villosum, turbinatum, quinquedentatum, aristatum, persistens, fig. 1.

COROLLA monopetala, *Tubus* incurvus, infra glaber, albus, supra purpureus, extus et intus pubescens, calyce longior, *Labium* superius subrotundum, integrum, planum, erectum, inferius trifidum; *lacinula media* latiori, subrotunda, emarginata, fig. 2.

STAMINA: FILAMENTA quatuor, subulata, alba, pubescentia, tubo longiora, quorum duo inferiora paulo breviora; ANTERÆ e rubro purpurascentes, bilobæ, lobis subrotundis, fig. 3.

PISTILLUM: GERMEN quadripartitum; STYLUS subulatus, albidus, glaber, staminibus paulo longior: STIGMA bifidum, fig. 4, 6.

NECTARIUM fig. 5.

SEMINA quatuor, fusca, glabra, triquetra, latere exterio convexo, interiore gibbo, fig. 7.

ROOT perennial, the thickness of the little finger, horizontal, somewhat woody, of a yellowish brown colour, wrinkled transversely, and furnished with numerous, long, whitish, tough, fibrous strings.

STALKS a foot or more in height, upright, generally simple, in gardens branched, four-corner'd, the corners obtuse, and two of the sides more deeply hollowed than the others, roughish, the hairs somewhat rigid, turning downward and press'd towards the stalk, jointed, the joints near the top of the stalk removed far from each other.

LEAVES next the root standing on long footstalks, of an oblong heart-shaped figure, bluntly notched, obtuse, veiny and somewhat wrinkled, covered with few hairs, but dotted all over with small hollow points, the edge fringed with hairs, those on the stalk, opposite, narrower, and rather serrated than crenated, hanging down, the edges generally curled back.

FLOWERS purple, growing in a spike.

SPIKE terminal, oblong, composed of several sessile close whorls, the lowermost of which are most commonly remote from the others.

BRACTÆ numerous, placed under each whorl, lanceolate, and a little shorter than the Calyx.

CALYX: a PERIANTHUM tubular, internally villous, broadest at top, having five teeth, which terminate in five long points, and are permanent, fig. 1.

COROLLA monopetalous; the *Tube* bending inwards, below smooth and white, above purple, downy both within and without, and longer than the calyx: the upper *Lip* roundish, entire, flat, and upright, the lower one divided into three segments, the middle one of which is broader than the others, roundish with a notch in the middle, fig. 2.

STAMINA: four FILAMENTS, tapering, white, and downy, longer than the tube, of which the two lowermost are somewhat the shortest; ANTERÆ of a reddish purple colour, composed of two roundish lobes, fig. 3.

PISTILLUM: GERMEN divided into four parts; Style tapering, whitish, smooth, somewhat longer than the Stamina; STIGMA bifid, fig. 4, 6.

NECTARY fig. 5.

SEEDS four, brown, smooth, three cornered, the outermost side convex, the innermost gibbous, fig. 7.

ANTONIUS MUSA, Physician to the emperor AUGUSTUS, wrote an entire book on this plant, whence it began to be held in such esteem in Italy as to occasion the Proverb, *Vende la tonica et compra la Betonica*, that is, *Sell your coat and buy Betony*, and when they wished to extol a person they would say, *Tu hai più virtù, che non ha la Betonica*, *You have more virtues than Betony*. Matth. in Dioscor. p. 943. Raii Hist. p. 550.

The leaves and flowers of Betony have an herbaceous roughish, somewhat bitterish taste, accompanied with a very weak aromatic flavour. This herb has long been a favourite among writers on the Materia Medica, who have not been wanting to attribute to it abundance of good qualities. Experience does not discover any other virtue in Betony than that of a mild corroborant; as such, an infusion or light decoction of it may be drank as tea, or a saturated tincture in rectified spirit given in suitable doses, in laxity and debility of the viscera, and disorders proceeding from thence. The powder of the leaves, snuffed up the nose, provokes sneezing, and hence Betony is sometimes made an ingredient in sternutatory powders: this effect does not seem to be owing, as is generally supposed to any peculiar stimulating quality in the herb, but to the rough hairs which the leaves are covered with. The roots of this plant differ greatly in quality from the other parts; their taste is bitter and very nauseous: taken in a small dose they vomit and purge violently, and are supposed to have somewhat in common with the roots of Hellebore. Lewis's Disp. p. 103.

Betony grows abundantly in all our woods, about Town, and on some of the heaths, flowering in July, August, and September.

RAY observes, that it is sometimes found with white and sometimes with flesh-coloured blossoms.



Stachys sylvatica.

STACHYS SYLVATICA. HEDGE-NETTLE.

STACHYS Linn. Gen. Pl. DIDYNAMIA GYMNOSEPMIA.

Corolla lab. super. fornicatum, lab. inferius lateribus reflexum, intermedia majore emarginata, Stamina deflorata versus latera reflexa.

Raii Syn. Gen. 24. SUFFRUCTICES ET HERBÆ VERTICILLATÆ.

STACHYS *sylvatica* verticillis sexfloris, foliis cordatis petiolatis. Linn. Syst. Veg. p. 447. Sp. Pl. 811. Fl. Suec. n. 526.

CARDIACA foliis cordatis ferratis, verticillis nudis, spicatis. Haller Hist. n. 216.

STACHYS *sylvatica*. Scopoli Fl. Carniol. n. 706.

LAMMIUM maximum sylvaticum foetidum. Bauh. Pin. 231.

GALEOPSIS vera. Ger. emac. 709.

GALEOPSIS legitima Dioscoridis. Park. 608. Raii Syn. ed. p. 343. Hedge-Nettle.

GALEOPSIS five urtica iners magna foetidissima. J. B. III. 853.

Hudson Fl. Angl. ed. 2. p. 259. Lightfoot Fl. Scot. p. 312.

RADIX perennis, repens.

CAULIS erectus, pedalis ad tripedalem, quadrangularis, hirsutus, ramosus.

RAMI oppositi, suberecti, cauli similes.

FOLIA petiolata, cordata, acuta, ferrata, venosa, utrinque hirsuta.

PETIOLI hirsuti, longitudine foliorum.

FLORES saturate at vivide purpurei, verticillati, laxe spicati, verticillis sexfloris, brevibus pedicellis insidentibus: ad singulum geniculum setae duodecim, utrinque sex, floribus subiectæ.

CALYX: PERIANTHUM monophyllum, campanulatum, hirsutum, viscidum, punctis prominentibus scabrum, purpurascens, quinquedentatum, dentibus acutis, patentibus, supremo paulo longiore, fig. 1.

COROLLA monopetala, ringens, purpurea, tubus brevissimus, albus, fauce tenuior, apice strangulatus, et interne villosus; Faux nitida, subcylindracea, paululum incurvata, superne villis minimis adspersa; *Labium* superius ovatum, obtusum, integrerrimum, inferne concavum, superne convexum, viscidulum, *Labium* inferius majus, trifidum; albo pulchre variegatum, lacinulæ intermedia subemarginata, replicata, fig. 2, 3, 4.

STAMINA: FILAMENTA quatuor, quorum duo paulo longiora, purpurea, nitida, medio paululum incrassata et pilosa; ANTHÈRE primum obscure violaceæ, demum nigricantes; POLLEN album, fig. 5.

PISTILLUM: GERMIN quadripartitum; STYLUS filiformis; situ et longitudine staminum; STIGMA bifidum, acutum, fig. 6, 7, 8.

NECTARIUM: *Glandula* majuscula, totam basin germinis cingens, fig. 9.

PERICARPIUM nullum; Calyx continens

SEMINA quatuor, ovata, angulata, fig. 10.

ROOT perennial, and creeping.

STALK upright, from one to three feet high, square, hirsute, and branched.

BRANCHES opposite, nearly like the stalk.

LEAVES standing on footstalks, heart-shaped, pointed, serrated, veiny, hirsute on both sides.

LEAF-STALKS hirsute, the length of the leaves.

FLOWERS of a deep but bright colour, growing in whorls and forming a loose spike, about six flowers in each whorl, fitting on short flower-stalks, at each joint twelve setæ or fine pointed leaves, six on each side, placed under the flowers.

CALYX: a PERIANTHUM of one leaf, bell-shaped, hirsute, viscid, rough with little prominent points, of a purplish colour, having five pointed spreading teeth, of which the uppermost is somewhat the longest, fig. 1.

COROLLA monopetalous, ringent, purple, the tube very short, white, slenderer than the faux, strangled at top, where it is villous on the inside; Faux shining, somewhat cylindrical, bending a little down, on the upper part covered with numerous short hairs; the upper Lip ovate, obtuse, entire, below concave, above convex, and somewhat viscid, the lower Lip large, trifid, beautifully variegated with white, the middle segment slightly notched, and having its sides folded back, fig. 2, 3, 4.

STAMINA: four FILAMENTS, two of which are a little longer than the others, purple, shining, thickened a little in the middle and hairy; ANTHÈRE at first of a dull violet colour, finally blackish; POLLEN white, fig. 5.

PISTILLUM: GERMIN divided into four parts; STYLE thread-shaped, situated with and of the same length as the stamina: STIGMA bifid, and pointed fig. 6, 7, 8.

NECTARY: a largish *Gland* surrounding the whole base of the germin, fig. 9.

SEED-VESSEL none, the Calyx containing

SEEDS four ovate and angular, fig. 10.

In the parts of fructification, there is a considerable similarity betwixt this species and the palustris, but in the form of its leaves it differs very materially.

It grows in almost every shady ditch about London and elsewhere, and flowers in June and July; its blossoms have sufficient beauty to recommend them, and they might perhaps be more an object of admiration, did not the plant, on being in the least bruised, smell disagreeably; if not bruised, its scent is rather of the agreeable kind.

The Snail excepted, few animals appear to relish it.

STACHYS PALUSTRIS. CLOWN'S ALLHEAL.

STACHYS. Linn. Gen. Pl. DIDYNAMIA GYMNOGEMIA.

Corollæ lab. super. fornicatum, lab. inferius lateribus reflexum, intermedia majore emarginata. STAMINA deflorata versus latera reflexa.

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

STACHYS *palustris* verticillis subsexfloris, foliis linearis lanceolatis semiamplexicaulibus sessilibus.
Linn. Syst. Veg. p. 447. Sp. Pl. 811. Fl. Suec. n. 528.

STACHYS foliis hirsutis, elliptico-lanceolatis, breviter petiolatis, verticillis spicatis. Haller Hist. n. 257.

STACHYS *palustris*. Scopoli Fl. Carn. n. 707.

STACHYS palustris fastida. Bauh. Pin. 236.

SIDERITIS Anglicæ strumosa radice. Park. 587.

PANAX coloni. Ger. emac. p. 1005. Raii Syn. p. 242. Clown's Allheal.

Lightfoot Fl. Scot. p. 313.

Hudson Fl. Angl. ed. 2. p. 259.

RADIX perennis, repens, stolonibus plurimis, albis, per terram in longum extensis, quorum extremitates sub finem æstatis in tubera intumescunt.

CAULIS bipedalis, erectus, ramosus, fistulosus, quadrangularis, lateribus planiusculis, angulis hispidulis, pilis deorsum versis, geniculatus, geniculis pilosis, purpureis.

RAMI cauli similes.

FOLIA opposita, sessilia, subamplexicaulia, lanceolata, patentia, ferrata, subrugosa, nervo medio subtus scabriuscuso.

FLORES verticillati, spicati, pallide purpurei, verticillis decemfloris, octo in circulum dispositis, uno utrinque superimposito.

SPICA spithamea, erecta.

BRACTÆ ovato-acuminatæ, integerrimæ, hirsutæ, trinerves, deflexæ.

CALYX: PERIANTHIUM monophyllum, tubulatum, quinquefidum, hirsutulum, purpurascens, lineis decem elevatis notatum, ore patulo, dentibus subæqualibus, acuminatis, fig. 1.

COROLLA monopetala, ringens, tubus brevissimus, cylindraceus, pilis interne coronatus, faux oblonga, compressiuscula, subincurvata, punctis duobus prominulis ad basin labii superioris, labium superius erectum, subovatum, fornicatum, emarginatum, superne viscidum, labium inferius majus, trifidum, albo et purpureo pulchre variegatum, lacinula intermedia maxima, concava, fig. 2, 3, 4.

STAMINA: FILAMENTA quatuor, quorum duo paulo breviora, ad lentem subpilosa, medio crassiora, rubicunda, nitida; ANTERÆ e purpureo-nigricantes; POLLEN album, fig. 5, 6.

PISTILLUM: GERMEN quadripartitum; STYLUS filiformis longitudine staminum; STIGMA bifidum, acutum, fig. 7, 8, 9.

ROOT perennial, creeping, shoots numerous, white, extending under ground to a great length, their extremities at the close of the summer becoming tuberous.

STALK two feet high, upright, branched, hollow, four cornered, the sides flattish, the corners somewhat hispid with hairs which turn downward, jointed, the joints hairy, and purple.

BRANCHES like the stalk.

LEAVES opposite, sessile, slightly embracing the stalk, lanceolate, spreading, serrated, somewhat wrinkly, the midrib on the under side of the leaf roughish.

FLOWERS of a pale purple colour, growing in whorls which form a spike, in each whorl is ten flowers, eight placed circularly, and one on each side above them.

SPIKE six or eight inches high.

FLORAL-LEAVES ovate and pointed, entire, hirsute, three-rib'd, and turned downward.

CALYX: a PERIANTHIUM of one leaf, tubular, divided into five segments, slightly hirsute, purplish, marked with ten elevated lines, the mouth open, the teeth nearly equal and pointed, fig. 1.

COROLLA monopetalous, ringent; tube very short, cylindrical, crowned internally with hairs; mouth oblong, somewhat flattened and a little bent, marked with two prominent dots at the base of the upper lip; upper lip upright, somewhat ovate, arched, nicked, and viscid at top; the lower lip larger, divided into three segments, beautifully variegated with white and purple, the middle segment very large and hollow, fig. 2, 3, 4.

STAMINA: four FILAMENTS, two of which are somewhat shorter than the other two, hairy when magnified, thickest in the middle, reddish and shining; ANTERÆ, of a purplish black colour; POLLEN white, fig. 5, 6.

PISTILLUM: GERMEN divided into four parts; STYLE thread-shaped, the length of the stamna; STIGMA bifid, and pointed, fig. 7, 8, 9.

GERARD has been extremely lavish in his praises of this plant as a vulnerary, whence it has acquired its name of *Clown's Wound-Wort*, or *Allheal*. He mentions the case of a labouring man, who in reaping cut a deep gash in his leg, which by the application of this herb was presently healed, and which doubtless would have healed equally soon from the application of any other simple herb, or a little dry lint. In sound constitutions nature often performs wonders in this way, which generally are attributed to the application.

It behoves the Farmer to know it, as it is a very noxious plant in many Corn-fields, increasing very much by its roots, which towards the close of the summer become tuberous at their extremities; it increases also by seed. Hogs are said by LINNAEUS to be fond of the roots; when the crop is off, they may probably be turned into those fields where the plant abounds to great advantage.

It is not confined to Corn-fields, but is often met with by road sides, especially in moist situations. It flowers in July and August.



Stachys palustris.

SCUTELLARIA GALERICULATA. COMMON HOODED WILLOW-HERB.

SCUTELLARIA Linn. Gen. Pl. DIDYNAMIA GYMNOSPERMIA. Calyx ore integro: post florescentiam clauso, operculato.

Raii. Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

SCUTELLARIA galericulata foliis cordato-lanceolatis crenatis, floribus axillaribus. Linn. Syst. Vegetab. p. 457. Sp. Pl. 835. Fl. Suecic. n. 538.

CASSIDA foliis oblonge cordatis crenatis verticillis nudis bifloris. Haller Hist. 280.

CASSIDA galericulata. Scopoli Fl. Carniol. 74.

LYSIMACHIA cærulea galericulata, seu Gratiola cærulea. Bauh. Pin. 246.

LYSIMACHIA galericulata. Gerard. emac. 477.

GRATIOLA cærulea, f. latifolia major. Park. 221.

CASSIDA palustris vulgatior flore cæruleo. Raii Syn. p. 244. Hooded Willow-herb.

Hudson. Fl. Angl. p. 265.

Lightfoot Fl. Scot. 320.

RADIX perennis, tenuis, geniculata, alba, repens.
CAULES pedales aut bipedales, erecti, quadrati, lateribus concaviusculis, bilineatis, geniculati, rigiduli, ramosi, ramis oppositis, suberectis.

FOLIA oblongo-cordata, obtusiuscula, inæqualiter cre-nata, superiora acuta.

BRACTÆ duæ, minimæ, setaceæ, ad basin pedunculi.

FLORES bini, secundi, cærulei, villosi, subtus albidi.

CALYX: PERIANTHIUM monophyllum, brevissimum, tubulatum: ore truncato, squamula incum-bente operculi instar clausili, fig. 1.

COROLLA monopetala, ringens. Tubus brevissimus, retrorsum flexus. Faux longa, compressa. Labium superius concavum, trifidum: lacinula media concava, emarginata; lateralibus planis, acutiusculis, intermediæ subiectis. Labium inferius latius, emarginatum, fig. 2.

STAMINA: FILAMENTA quatuor, alba, medio crassi-ora et ad unum latus villosula, duo breviora: ANTHERÆ parvæ, luteæ, fig. 3.

PISTILLUM: GERMAN quadripartitum; STYLUS superne paululum incrassatus, STIGMA sim-plex, incurvatum, acuminatum, fig. 4, 5, 6.

PERICARPIUM nullum, Calyx bipartibilis, operculo clausus, capsulæ vicem gerens.

SEMINA 1 ad 4 subrotunda, pallide fusca, superficie scabra, fig. 9, 10.

RECEPTACULUM seminum subrotundum, fig. 8.

ROOT perennial, slender, jointed, white and creeping. STALKS from one to two feet high, upright, square, the sides a little hollowed and marked with two lines, jointed, stiffish, branched, the branches opposite and nearly upright.

LEAVES of an oblong heart shape, somewhat blunt, standing on footstalks, rather wrinkly and unequally crenated, those on the top of the plant pointed.

FLORAL-LEAVES two, very small and setaceous, at the base of the flower stalk.

FLOWERS growing in pairs, one way, of a blue colour, downy, and whitish underneath.

CALYX: a PERIANTHIUM of one leaf, very short, and tubular; the mouth as if cut off, having a scale on it which seems to do the office of a lid, fig. 1.

COROLLA monopetalous and ringent. Tube very short and bent backwards. Throat long, compressed; upper Lip hollow, and trifid; the middle segment hollow and nicked; the side ones flat, pointed, and placed under the middle one; Lower Lip broad and nicked, fig. 2.

STAMINA: four white FILAMENTS, thickest in the middle and a little villous on one side, two shorter than the others; ANTHERÆ small and yellow, fig. 3.

PISTILLUM: GERMAN divided into four parts, STYLE towards the top a little thickened: STIGMA simple, hooked, and pointed, fig. 4, 5, 6.

SEED-VESSEL: none, the Calyx which splits into two parts, being closed by its lid, answers the purpose of a capsule.

SEEDS from one to four, roundish, of a pale brown colour, with a roughish surface, fig. 9, 10.

RECEPTACLE of the seeds roundish, fig. 8.

Botany would certainly please more in the study of it, were the Genera, as in the present instance, distinctly characterized; the singular and curious construction of the Calyx in this genus is very deserving of a minute attention.

This species of Scutellaria grows commonly on the edges of rivers and ponds, and flowers in June, July, and August.

It has a very increasing root, and hence should cautiously be introduced into the Garden.

HALLER attributes to it the smell of Garlick, which it scarcely merits.



Scutellaria galericulata

Sanson Sculps.

ANTIRRHINUM SPURIUM. ROUND-LEAVED FLUELLIN.

ANTIRRHINUM Lin. Gen. Pl. DIDYNAMIA GYMNOSEPERMIA. *Angiosperma*.

Cal. 5. phyllus. Corollæ basis deorsum prominens, nectarifera. Capsula 2-locularis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI, FLORE MONOPETALO.

ANTIRRHINUM *spurium* foliis ovatis alternis, caulis procumbentibus. Lin. Syß. Vegetab. p. 464.
Sp. Pl. 851.

ANTIRRHINUM caule procumbente, foliis villosis, ovatis, imis conjugatis, superioribus alternis. Haller.
Hist. p. 771.

ANTIRRHINUM *spurium*. Scopoli Fl. Carniol. 771.

ELATINE folio subrotundo. Baubin pin. 252. Park. 533.

VERONICA fœmina Fuchsii seu Elatine Ger. em. 625.

LINARIA Elatine dicta folio subrotundo.

Raii Syn. p.* 282. Round-leaved Female Fluellin.

Hudson. Fl. Angl. ed. 2. p. 272.

The *Antirrhinum spurium* bears so great an affinity in its habit and fructifications (*vid. fig. 1, 2, 3.*) to the *Elatine*, that it would be superfluous to describe it minutely; it is sufficiently distinguished from that plant by its leaves alone, which in this species are always round, in that hastate, at least those of the stalk, for in both species the leaves next the root are roundish and generally indented; of the two the *spurium* is the largest plant.

Although LINNÆUS has given it the name of *spurium*, there is no reason to suppose it the spurious offspring of the *Elatine*, as the two plants generally grow separate. About Alton, in Hampshire, the *spurium* abounds in many corn fields, without the least mixture of the *Elatine*; and about Coomb-wood, in Surry, the *Elatine* may be found in plenty, without the least traces of the *spurium*: while in some counties they grow promiscuously in the same field.

The round-leaved is by far the scarcest plant near town; I found it last July tolerably plentiful and in blossom, in a corn field betwixt Beckenham and Shirley Common.



Utricularia phumaria



BRASSICA MURALIS. WILD ROCKET.

BRASSICA Linnae Gen. Pl. TETRADYNAMIA SILIQUOSA.

Cal. erectus, connivens. Sem. globosa. Glandula inter stamna breviora et pistillum, interque longiora et calycem.

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

BRASSICA muralis foliis lanceolatis, sinuato-ferratis, laeviusculis; caule erecto, glabro. Hudson Fl. Angl. p. 290.

ERUCA foliis glabris, pinnatis, pinnis linearibus disiformibus. Haller Hist. n. 461.

ERUCA sylvestris. Matt. in Diosc. p. 531. cum iconē.

ERUCA tenuifolia perennis flore luteo. J. B. 2. 861.

ERUCA sylvestris. Gerard emac. 246.

ERUCA sylvestris vulgatior. Parkinson 818.

ERUCA sylvestris major vulgatior foetens. Hist. Ox. II. 230. Raii Syn. p. 296. Wild Rocket.

RADIX perennis, sublignosa, intra muros profunde penetrans, vix evellanda.	ROOT perennial, somewhat woody, penetrating deep into the walls, scarcely to be pulled out.
CAULIS sesquipedalis, erectus, ramosus, teres, basi sublignosus, perennans.	STALK a foot and a half high, upright, branched, round, at bottom somewhat woody and perennial.
FOLIA pinnatifido-laciñata, glabra, patentia, odoris ingrati.	LEAVES pinnatifid and jagged, smooth, spreading, of a disagreeable smell.
CALYX priusquam flores aperiuntur quasi bicornis, cornibus brevibus, pilo uno, altero instructis; flore aperto tetraphyllus, foliolis oblongis, concavis, duobus cum apicibus gibbosis, deorum tendentibus, duobus erectis, fig. 1, 2, 3.	CALYX before the flowers are expanded has the appearance of having two horns, which are short, and furnished with one or two hairs; on the expansion of the petals, it is composed of four, oblong, hollow leaves, two of which, being gibbous at top hang down, and the other two stand upright, fig. 1, 2, 3.
COROLLA: PETALA quatuor, majuscula, calyce duplo longiora, unguiculata, erecta, flava, fig. 4.	COROLLA: four PETALS, rather large, twice the length of the calyx, clawed, upright, and of a yellow colour, fig. 4.
NECTARIUM: Glandulæ quatuor, duo extra basin filamentorum præter morem longæ, apice extorsum incurvatae, duo intra basin filamentorum breviora, subrotunda, fig. 7, 8.	NECTARY: four Glands, two placed on the outside of the base of the filaments, unusually long, externally bent in at top, two placed on the inside of the base of the filaments, shorter and roundish, fig. 7, 8.
STAMINA: FILAMENTA sex, quorum duo breviora, subulata, erecta, flavescens; ANTHÆ in-cumbentes, subsagittatae, fig. 5.	STAMINA: six FILAMENTS, two of which are shorter than the rest, tapering, upright, and yellowish; ANTHÆ laying across the filaments, and somewhat arrow-shaped, fig. 5.
PISTILLUM: GERMIN oblongum, tenue; STYLUS brevissimus; STIGMA capitatum, fig. 6.	PISTILLUM: GERMIN oblong, slender, Style very short; STIGMA forming a little head, fig. 6.
PERICARPIUM: Siliqua sesquiuncialis, teres, utrinque linea prominenti notata, fig. 9.	SEED-VESSEL: a Pod about an inch and a half long, round, marked on each side with a prominent line, fig. 9.
SEMINA plurima, minuta, fusca, subovata, compref- siuscula.	SEEDS numerous, small, brown, somewhat oval, and a little flattened.

MATTHIOLUS, one of the first Botanists who has taken notice of this plant, calls it *Eruca sylvestris*, and has given us a tolerable good figure of it, sufficient at least with his annexed description to identify it: CASPAR BAUHINE quotes this plant from Matthiolus, with this addition, *Eruca sylvestris major lutea caule aspero*, now there certainly is no appearance either in the plant, in Matthiolus's description, or figure, which justifies those expressions; for as TOURNEFORT observes in his *Hist. des plantes des environs de Paris*, the branches have sometimes a few small hairs on them, but by no means can they be called rough; this description of Bauhine's has therefore created much confusion, nor is the name of J. BAUHINE, which TOURNEFORT has adopted, perhaps totally free from objection; the term *tenuifolia*, though proper when placed as the opposite to *latifolia*, in the present instance is liable to mislead.

Did we entertain the least idea of the insufficiency of Matthiolus's figure or description, TOURNEFORT and RAY have described it with so much accuracy as to leave no doubt of their being well acquainted with it; they both particularize its disagreeable smell; Tournefort's expressions are, *son odeur approche de celle des huiles fétides rectifiées sur la chaux vive*; Ray's, *odor totius plantæ foetidus et ingratus, nostris saltem naribus*: if any thing more were wanting to their descriptions, we might add some peculiarities in its fructifications, as that the Calyx before it opens appears to have two little short horns, from each of which issue one or more fine hairs; when the flower is expanded two of the leaves of the Calyx stand almost upright, while the other two bend back, and that two of the glands are uncommonly long.

Mr. HUDSON, in the first edition of his *Flora Anglica*, calls this plant *Brassica Erucastrum*; in the second edition he has made it a new species; it certainly does not accord with LINNÆUS's specific description of that plant; its fructifications denote it to be a *Brassica*, and it does not agree with any of the other species of *Brassica* in LINNÆUS, I have therefore adopted Mr. HUDSON's name.

The Garden Rocket *Brassica Eruca* was formerly much cultivated in gardens for medicinal use and for salads; but is at present less common: the seeds have a pungent taste of the mustard kind, but weaker, they have long been celebrated as aphrodisiacs, and may probably have, in some cases, a title to this virtue in common with other acrid plants, and this, as RAY observes, was not only the opinion of the Physicians, but also of the Poets of former times, which he illustrates with the following quotations:

MARTIAL. *Et Venerem revocans Eruca morantem.*

COLUMELLA. *Excitat ad Venerem tardos Eruca maritos.*

OVID. *Nec minus Erucas jubeo vitare salaces.*

The *Brassica Muralis* grows very plentiful in and about London, and is I believe of general growth on most of the old walls and castles throughout England; with us in particular it grows on the walls round the Tower, at the back of Bedlam, and near Hyde-Park; it is also frequently found among rubbish; it flowers during the greatest part of the summer.

CARDAMINE AMARA. BITTER LADIES-SMOCK.

CARDAMINE. *Linn. Gen. Pl. TETRADYNAZIA SILIQUOSA. Siliqua elatice diffiliens, valvulis revolutis. Stigma integrum, Calyx subhians.*

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

CARDAMINE *amara* foliis pinnatis axillis stoloniferis. *Linn. Syst. Vegetab. p. 497. p. 915. Fl. Suec. n. 586.*

CARDAMINE foliis pinnatis, subrotundis, angulosis. *Haller Hist. 474.*

CARDAMINE stolonifera *Scopoli, ic. 39?*

NASTURTIUM aquaticum majus et amarum. *Bauh. Pin. 104.*

CARDAMINE flore majore elatior. *Tourn. Inst. R. H. Raii Syn. 291. Bitter Cresles.*

Hudson Fl. Engl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 350.

RADIX perennis, tenuis, albida, repens.

CAULIS pedalis ad bipedalem, erectus, basi stoloniferus, flexuosus, subangulatus, glaber, ramosus.

FOLIA radicalia magna, rotundata, subintegerrima; caulinis suberecta, pinnata, pinnarum paria plerumque tria cum impari, pinnae oblongæ, angulatæ, angulis denticulo terminatis, læves, margine ad lentem visæ minutim ciliatæ, extimâ majori et in plures angulos divisâ.

FLORES albi, pro magnitudine plantæ, minores, flosculis Cardamines pratensis perquam similes, nunquam vero colorati.

PEDUNCULI ebracteati, teretes, læves, alterni.

CALYX: PERIANTHIUM tetraphyllum, foliolis concavis, erectis, flavescentibus, margine membranaceis, deciduis, fig. 1.

COROLLA: PETALA quatuor, suberecta, alba, basi virescentia, oblongo-ovata, subemarginata, plana, lineis profundis exarata, fig. 2.

STAMINA: FILAMENTA sex, quorum duo breviora, subulata, alba; ANTERÆ incumbentes, purpureæ; apicibus convolutis, fig. 5, 3.

GLANDULÆ ut in Cardamine pratensi, fig. 7.

GERMEN compressum, minute articulatum, longitudine staminum; STYLUS brevis, obliquus; STIGMA minimum, fig. 4.

PERICARPIUM Siliqua et Semina sicut in Cardamine pratensi, nisi majora, fig. 8, 9.

ROOT perennial, slender, whitish, and creeping.

STALK from one to two feet high, upright, at bottom throwing out runners from the alæ of the leaves, crooked, somewhat angular, smooth, shining, and branched.

LEAVES next the root large, round, and almost perfectly entire; on the stalk nearly upright, pinnated, consisting for the most part of three pair of pinnae with an odd one, pinnae oblong, angular, each angle terminated by a small tooth or point, smooth; the edge, if viewed with a magnifier, appearing finely ciliated, the terminal pinnae larger than the others, and divided into more angles.

FLOWERS white, considering the largeness of the plant rather small, very like those of the common Ladies-smock, but never coloured.

PEDUNCULES without any bractæa, round, smooth, and alternate.

CALYX: a PERIANTHIUM of four leaves, the leaves oblong, hollow, upright, yellowish, membranous at the edge, and deciduous, fig. 1.

COROLLA: four PETALS, somewhat upright, white, with a greenish base, of an oblong oval shape, slightly notched, flat, with lines deeply engraven, fig. 2.

STAMINA: six FILAMENTS, two of which are shorter than the others, tapering and white; ANTERÆ incumbent, purple, the top rolled up, fig. 5, 3.

GLANDS as in the common Ladies-smock, fig. 7.

GERMEN flat, finely jointed, the length of the stamena; STYLE short and oblique; STIGMA very minute, fig. 4.

SEED-VESSEL: Pod and Seeds similar to those of the common Ladies-smock, but larger, fig. 8, 9.

The *Cardamine amara* differs from the *pratensis* in divers respects, yet its affinity is so considerable as often to occasion its being mistaken for it; if the following characters, which distinguish it in particular from that plant, are attended to, the student will not easily be misled.

The *Cardamine pratensis* is a plant common in almost every wet meadow, this on the contrary is much more local, and rather affects to grow on the edges of rivulets and streams of water, than in the open meadow; the stalk-leaves of the *pratensis* are usually narrow, the sides closing almost together, these on the contrary are large, broad, and very angular, more resembling indeed the water-cress, from which similarity this plant has obtained among the old Botanists the name of *Nasturtium*; it is in every respect a larger plant than the *pratensis*, its blossoms excepted, which are nearly of the same size; and, as in the *pratensis* they are always of a purple colour, more or less deep, so in this they are always perfectly white; the antheræ, which in the *pratensis* are of a yellow colour, here form a striking contrast, and appear of a deep purple, and that, so far as I have observed, invariably, the tips of them are also more curled up; the style, which in the *pratensis* is upright, in the *amara* has an unusual obliquity in it, which I believe has not been noticed; towards the bottom of the stalk the *amara* is more disposed to throw out runners from the alæ of the leaves than the *pratensis*, but this character depends, in a considerable degree, on the circumstances of situation, &c. the *pratensis* has a similar disposition in degree, and I have seen it throw out roots from the midrib of the bottom leaves.

This plant may be considered as one of our plantæ rariores, I have noticed it here and there on the banks of the Thames, and the creeks running from it about Battersea and Chelsea, Mr. ALCHORNE has observed it about Lewisham, and in the neighbourhood of Uxbridge it grows in abundance.

It flowers in May, and ripens its seed in June.

Its virtues and uses remain to be discovered; it has a strong biting taste of the cress kind, but not that degree of bitterness which would justify the epithet *amara*.



Cardamine amara.



Cardamine pratensis.

CARDAMINE PRATENSIS. COMMON LADIES-SMOCK.

CARDAMINE. *Linn. Gen. Pl. TETRADYNAMIA SILIQUOSA Siliqua elatice diffiliens valvulis revolutis, Stigma integrum. Cal. subhians.*

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

CARDAMINE *pratensis* foliis pinnatis: foliolis radicalibus subrotundis, caulinis lanceolatis: *Linn. Syst. Vegetab. p. 497. Sp. Pl. 915. Fl. Suec. n. 585.*

CARDAMINE foliis pinnatis, radicalibus subrotundis, caulinis linearibus. *Haller Hist. n. 473.*

CARDAMINE *pratensis*. *Scopoli Fl. Carn. n. 819.*

NASTURTIUM *pratense* magno flore. *Bauh. p. 104.*

FLOS CUCULI. *Dod. pempt. 592.*

CARDAMINE. *Ger. emac. 259.*

NASTURTIUM *pratense* majus five Cardamine latifolia. *Parkins. 285. Raii Syn. p. 299. Ladies-Smock or Cuckow-flower.*

Hudson Fl. Angl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 349.

RADIX perennis, crassiuscula, alba, multis fibris tenuis, capillata.

CAULIS dodrantalis, erectus, apice parum ramosus, teres, obsolete angulosus, laevis, firmus, purpurascens.

FOLIA radicalia saepius manca, in orbem sparsa, pinnata, pinnis subrotundis, inequaliter tridentatis, extimo majori, et saepius quinque dentato, brevissime pedicellata, laevia; caulina pinnata, erecta, pinnis plurimis, confertis, sublinearibus, concavis.

RACEMUS terminalis, pedunculatus, nudus, glaber.

CALYX: PERANTHİUM tetraphyllum, foliolis ova-to-oblongis, obtusis, margine membranaceis, concavis, alternis basi gibbosis, deciduis, fig. 1.

COROLLA cruciformis, dilute purpurea seu albida; Petala obovata, subemarginata, unguibus flavescens, longitudine calycis, fig. 2.

STAMINA: FILAMENTA sex, subulata, quorum duo breviora, incurvata; ANTHERÆ cordato-lineares, incumbentes, flavæ, fig. 3.

NECTARIUM: Glandulae quatuor, quorum duo filamentorum breviorum basin cingunt, duo extra basin filamentorum longiorum locantur.

PISTILLUM: GERMIN cylindraceum, tenui; STYLUS brevissimus; STIGMA capitatum, statim minibus paulo brevior, fig. 4. 5.

PERICARPIUM: Siliqua cylindraceo-compressa, bilocularis, bivalvis, valvulis dehiscendo spiritaliter revolutis, fig. 6, 7.

SEMINA plurima, compressa, flavescens, fig. 8.

ROOT perennial, thickish, white, furnished with a large tuft of fine fibres.

STALK about nine inches high, upright, at top a little branched, round, scarce perceptibly angular, smooth, stiffish, with a purplish tinge.

LEAVES next the root frequently imperfect, spreading in a circular form, pinnated, the pinnæ roundish, running out into three unequal angles or teeth, the outermost largest, and having for the most part five angles, standing on very short foot-stalks and smooth; those on the stalk pinnated, upright, the pinnæ numerous, growing thickly together, somewhat linear and hollow.

RACEMUS or Flower-bunch, terminal, furnished with foot-stalks, naked and smooth.

CALYX: a PERANTHİUM of four leaves, which are oval, obtuse, membranous at the edge, hollow, the alternate ones gibbous at the base, and deciduous, fig. 1.

COROLLA cross-shaped, of a pale purple or whitish colour; Petals inversely ovate, slightly notched, claws of a yellowish colour, the length of the calyx, fig. 2.

STAMINA: six Filaments, tapering, the two shortest of which bend inward; ANTHERÆ heart-shaped yet linear, incumbent and yellow, fig. 3.

NECTARY: four Glands, two of which surround the base of the shortest filaments, and two are placed on the outside of the base of the long filaments.

PISTILLUM: GERMIN cylindrical, and slender; STYLE very short; STIGMA forming a little head, and not quite so long as the stamina, fig. 4, 5.

SEED-VESSEL: a Pod, cylindrical, and somewhat flattened, of two cavities and two valves, the valves in opening curling up, fig. 6, 7.

SEEDS numerous, flattened and yellowish, fig. 8.

The flowers of the *Cardamine pratensis* were a few years since introduced into practice, and recommended as serviceable in various spasmodic complaints by Sir W. BAKER, in the first volume of the *Medical Transactions*, such as the convulsive Asthma, spasms of the abdominal and other muscles, St. Vitus's Dance, Epilepsy, &c. the dose recommended was from a scruple to half a drachm or more of the powder of the dried flowers, to be taken morning and evening.

From the disuse into which this medicine has fallen, it should seem that it had not answered the expectations of succeeding practitioners neither here nor abroad. *Vid. Murray's Apparatus Medicam. V. 2. p. 320.*

It gives a name to the *Papilio Cardamine* or *Orange-tip Butterfly*, which according to LINNÆUS feeds on it.

Sometimes it is found with double flowers, in which state it is kept in the gardens of the curious, where it requires a moist shady situation.

In the colour of its blossoms it is subject to much variation, they are usually white, with a tinge of purple, and ornament our meadows in the delightful month of May, as described by Shakespeare in *Love's Labour lost*.

When daisies py'd and violets blue,
And cuckow-buds of yellow hue,
And LADIES-SMOCKS all silver white
Do paint the meadows with delight, &c.

It probably acquired its plain English name of Lady-smock from the white appearance which its blossom gives to the meadows where it abounds, resembling linen bleaching on the grass:

"When maidens bleach their summer smocks,"

a practice very general formerly, when most families spun and bleached their own linen.



Sisymbrium sylvestre

Scamman & Scott

SISYMBRIUM SYLVESTRE. CREEPING WATER-ROCKET.

SISYMBRIUM *Linnæi. Gen. Plant. TETRADYNAMIA SILIQUOSA.*

Siliqua dehiscens valvulis rectiusculis. Cal. patens. Cor. patens.

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

SISYMBRIUM sylvestre siliquis declinatis oblongo-ovatis, foliolis lanceolatis ferratis. *Linn. Syst. Vegetab. p. 497.*

SISYMBRIUM foliis pinnatis, pinnis dentatis diffisis. *Haller Hist. n. 485.*

SISYMBRIUM Roripa? *Scopoli Fl. Carniol. p. 823.*

SISYMBRIUM palustre repens Nasturtii folio. *Tournefort plant autour de Paris, p. 37.*

ERUCA sylvestris minor luteo parvoque flore. *Bauhin Pin. 98.*

ERUCA quibusdam sylvestris repens, flosculo luteo. *Bauh. Hist. 2. p. 866.*

ERUCA aquatica *Ger. emac. 248. Park. 1242. Raii Syn. 297. Water-Rocket. Raii Hist. p. 808.*

Hudson Fl. Angl. ed. 2. p. 296.

Lightfoot Fl. Scot. p. 351.

RADIX perenniš, albida, tenuis, insigniter repens, plurimis germinibus tuberculosa.	ROOT perennial, whitish, slender, remarkably creeping, thickly beset with germs which give it a knobbed appearance.
CAULES plurimi, pedales, suberecti, debiles, interdum purpurascentes, glabri, angulato-striati, ramosi, ramis hirsutulis.	STALKS numerous, a foot high, nearly upright, weak, sometimes purplish, smooth, somewhat angular and finely grooved, branched, the branches very slightly hairy.
FOLIA radicalia pinnatifida, pinnis subovatis, dento-ferratis, laevia, petiolo purpurascente, caulinæ alterna, subpinnatifida, pinnis lanceolatis, ferratis, integrifve.	LEAVES next the root pinnatifid, the pinnæ or small leaves somewhat ovate, toothed or sawed, and smooth, the leaf stalk purplish, leaves on the stalk alternate, serrated or entire.
PETIOLUS superne canaliculatus.	FLOWER-STALK hollowed above.
FLORES parvi, lutei.	FLOWERS small and yellow.
PEDUNCULUS communis multiflorus, flexuosus, <i>Pedunculi proprii</i> alterni, patentæ, aut sursum paululum curvati, filiquâ plerumque longiores.	FLOWER-STALK: the general flower-stalk bent in and out and supporting many flowers, the partial ones alternate, spreading almost horizontally, or bent a little upwards, generally longer than the pod.
CALYX: PERIANTHIUM tetraphyllum, foliolis ovatis, concavis, erectis, æqualibus, flavescentibus, fig. 1.	CALYX: a PERIANTHIUM of four leaves, which are ovate, hollow, upright, equal, and yellowish, fig. 1.
COROLLA: PETALA quatuor, unguiculata, obtusa, patentia, calyce paulo longiora, fig. 2.	COROLLA: four PETALS, each having a claw, and blunt at the point, spreading and a little longer than the calyx, fig. 2.
NECTARIUM: Glandulæ quatuor, saturate virides, in circulum coadunatæ.	NECTARY: four glands, of a deep green colour, united in a circle.
STAMINA: FILAMENTA sex, quorum duo breviora, subulata, flava; ANTHERÆ incumbentes, fig. 3.	STAMINA: six filaments, two of which are shorter than the others, tapering, and yellow, ANTHERÆ laying across the filaments, fig. 3.
PISTILLUM: GERmen oblongum, teres, longitudine staminum, fig. 5, STYLUS brevissimus; STIGMA capitatum, villosum, fig. 4.	PISTILLUM: GERmen oblong, round, the length of the stamina, fig. 5, STYLE very short; STIGMA forming a little head and villous, fig. 4.
PERICARPIUM: SILIQUA brevis, vix semuncialis, teres, sursum curvata, plerumque abortiva, fig. 6.	SEED-VESSEL a short Pod, scarce half an inch long, round, bending upwards, generally abortive, fig. 6.

TOURNEFORT in his *Histoire des Plantes des environs de Paris*, has described our plant with much accuracy; it appears from his account to be plentiful not only along the banks of the Seine, but in the courts before houses, and in most moist situations; it is also described by RAY, in his *Hist. Plant.*; with us it is not of such general growth, but in those situations in which it does occur we find it in great abundance; the watery part of Tothill-Fields, Westminister, is over run with it; I scarcely know any plant that requires to be introduced into a Garden with more caution than this, especially if the ground be moist.

It continues to flower from June to September. Both RAY and TOURNEFORT mention the seeds of this plant; it is probable they found it growing in a dry situation favourable to their ripening, the seed vessels which I have had an opportunity of seeing have all proved abortive, which I suspect is natural to the plant as it increases so considerably by its root.

This plant affords no striking generic character, but may be referred to almost any Genus in the order.

GERANIUM PYRENAICUM. PERENNIAL DOVES-FOOT CRANES-BILL.

GERANIUM Linn. Gen. Pl. MONADELPHIA DECANDRIA.

Monogyna. Stigmat. 5. Fructus rostratus, 5-coccus.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

GERANIUM *pyrenaicum* pedunculis bifloris, foliis inferioribus quinquepartito-multifidis, rotundatis; superioribus trilobis, caule erecto. Linn. Syst. Vegetab. p. 514.

GERANIUM pedunculis bifloris, foliis multifidis, laciniis obtusis, inæqualibus, petalis bifidis. Gerard. Fl. Gallo-prov. p. 434. fig. 16. 2. Hudson Fl. Angl. ed. 2. p. 302. Lightfoot Fl. Scot. p. 367.

RADIX perennis.	ROOT perennial.
CAULES suberecti, pubescentes, pedales, et ultra, ramosi, geniculati, geniculis paululum incrassatis.	STALKS nearly upright, and downy, a foot high, or more, branched, and jointed, the joints a little swelled.
FOLIA radicalia rotundata, hirsutula, venosa, margine saepe rubicunda, septemlobata, lobis subtrifidis, laciniis obtusiusculis, mucronatis, intermedia majore; caulina opposita, lobis paucioribus, iisque postice magis remotis.	LEAVES of the root of a roundish figure, somewhat hirsute, and veiny, the edge often reddish, divided into seven lobes, each of which is subdivided into about three bluntnish segments, terminated by a short point, the middle segment the largest; those of the stalk opposite, composed of fewer lobes, and those more widely separating behind.
PETIOLIS radicales, prælongi, teretes, pubescentes, si discindantur in extremitatibus suis puncta quatuor alba exhibentes.	LEAF-STALKS next the root very long, round, and downy, exhibiting if cut across four white dots on their extremities.
STIPULA ad singula genicula quaternæ, utrinque binæ, genicula ambientes, bifidæ, vel trifidæ, rubentes, persistentes.	STIPULÆ: four at each joint, two on each side, surrounding the joint, divided into two or three segments, of a reddish colour and permanent.
PEDUNCULI pubescentes, bifidi, biflori; Pedicelli longitudine pedunculi, basi stipulis quaternis minoribus notati.	FLOWER-STALKS downy, bifid, supporting two flowers; Partial flower-stalks the length of the general one, and furnished at bottom with four smaller stipulæ.
FLORES majusculi, purpurei, antequam aperiuntur nutantes, postea erecti.	FLOWERS largish and purple, before they open hanging down, afterwards becoming upright.
CALYX: PERIANTHIUM quinquepartitum, laciniis ovato-lanceolatis, brevi mucrone fusco obtusiusculo terminatis, trinervibus, ciliatis, subviscosis, fig. 1.	CALYX: a PERIANTHIUM divided into five oval pointed segments, terminated by a short brown bluntnish point, having three ribs, edged with hairs, and slightly clammy, fig. 1.
COROLLA: PETALA quinque, calyce duplo longiora, obcordata, apice bifida, basi villosa, fig. 2.	COROLLA: five PETALS twice the length of the calyx, inversely heart-shaped, bifid at top, at bottom villous, fig. 2.
NECTARIUM: Glandulæ quinque flavescentes ad basin Staminum, fig. 5.	NECTARY: five yellowish Glands placed at the bottom of the Stamina, fig. 5.
STAMINA: FILAMENTA decem, alba, apice purpurascens; ANTHERÆ cœrulescens; POLLEN album, globosum. Antheræ extus positæ pollen præ cæteris dimittunt, et dein decidunt, nunquam vero abortiunt, fig. 3.	STAMINA: ten FILAMENTS, purplish at top, ANTHERÆ blueish; POLLEN white and globular. The outer row of antheræ shed their pollen first and then drop off, but are never infertile, fig. 3.
PISTILLUM: GERMAN pentagonum, viride; STYLUS fulcatus; STIGMATA quinque, longitudo Antherarum, fig. 4.	PISTILLUM: GERMAN five-cornered, of a green colour; STYLE grooved; STIGMATA five, the length of the Antheræ, fig. 4.
FRUCTUS pentacoccus, Arillus carinatus, hirsutulus, fig. 6.	FRUIT composed of five prominent seeds, seed-covering marked with a prominent line, and slightly hirsute, fig. 6.
SEmen ovatum, fuscum, lœve.	SEED ovate, brown, and smooth.

The great similiarity existing between the present Geranium, the *molle*, and *rotundifolium*, has occasioned no small confusion among the synonyms of Authors, which as HALLER observes, are covered with impenetrable obscurity.

Nevertheless an attentive observance of the plants themselves, as they grow wild, will shew that they may be distinguished without any great difficulty. In treating of the *molle* which is the most liable to be mistaken for this species, I observed that it was subject to many varieties, particularly in the colour of its blossoms, that its stalks, always procumbent when the plant grew alone, were liable to grow upright among grass and herbage, and that in some rich pastures the flowers approached almost to the size of those of the present plant.—Having cultivated most of our English Geraniums, I can with certainty declare that the *molle* is strictly an annual, and the *pyrenaicum* perennial; this then constitutes an essential difference between the two, besides, the *pyrenaicum* usually grows to twice the size, its blossoms also are more than thrice as large, it is never procumbent, but always nearly upright, and it is likewise, with us at least, a much scarcer plant.

Mon. GERARD in his *Flora Galloprovincialis* has the merit of first giving an accurate description and figure of this plant, he supposes it to be the *Geranium columbinum perenne pyrenaicum maximum* of TOURNEFORT, whence LINNÆUS has given it the name of *pyrenaicum*; Mr. HUDSON in the first edition of his *Flora Anglica* called it *perenne*, but in the last he has adopted the name of LINNÆUS, I have hitherto found this plant growing wild in one spot only, viz. in the dry part of the pasture in Battersea Fields, on the left-hand side of the road as you pass from London by the Thames side, betwixt the Red House and Chelsea Bridge.

In Chelsea Garden it comes up as a weed and is there found also with white flowers.
It blows in June and July.



MALVA ROTUNDIFOLIA. DWARF MALLOW.

MALVA *Linnæi Gen. Pl.* MONADELPHIA POLYANDRIA.

Cal. duplex: exterior triphyllus. *Arilli plurimi*, monospermi.

Raii Syn. Gen. 15. HERBÆ SEMINE NUDO POLYSPERMÆ.

MALVA *rotundifolia* caule prostrato, foliis cordato-orbiculatis, obsolete quinquelobis; pedunculis fructiferis declinatis. *Lin. Syst. Vegetab.* p. 520.

MALVA caule repente, foliis cordato-orbicularibus, obsolete quinquelobis. *Haller Hist.* n. 1070.

MALVA rotundifolia. *Scopoli Fl. Carn.* n. 858.

MALVA sylvestris folio rotundo. *B. Pin.* 314.

MALVA sylvestris pumila. *Ger. emac.* 930.

MALVA sylvestris minor. *Park.* 299. *Raii Syn.* 251. Small wild Mallow or Dwarf Mallow.

Hudson. Fl. Angl. ed. 2. p. 307.

Lightfoot. Flor. Scot. p. 375.

RADIX annua, profunde descendens, albida.

CAULES plures ex una radice, prostrati, dodrantales, pedales et ultra, teretes, pubescentes, purpureascentes.

FOLIA alterna, petiolata, utrinque minutim pubescens, scabriuscula, subrotundo-reniformia, quinque vel septemloba; lobis rotundatis, margine ferrata, subtus subseptemnervia, extrema sensim majora.

PETIOLI teretes, elongati, pubescenti-scabri, supra fulcati.

STIPULÆ duæ, oppositæ, parviusculæ, lanceolatæ, acutæ, ciliatæ, pubescentes.

FLORES plerumque gemini, pedunculati, axillares, pedunculis petiolis brevioribus, filiformibus, teretibus, pubescentibus, saepius inæqualibus.

CALYX: PERIANTHIUM duplex, exterius triphyllum; foliolis linearis-subulatis, obtusis; interius campanulatum, pubescenti-scabrum, quinquefidum; laciniis ovato-acutis, erectis, carinatis, margine ferratis, subundulatis, fig. 1.

COROLLA alba, venis rubellis picta, PETALA quinque, linearis-cuneiformia, obtusa, emarginata, calyce paulo longiora, erecta, subsessilia, fig. 2.

STAMINA: FILAMENTA plurima, monadelpha; columna cylindrica, glabra, corolla brevior, superne breviter libera.

ANTHERÆ parvæ, subrotundæ, echinatæ, undique nutantes, fig. 3.

PISTILLUM: GERMEN orbiculatum, depresso, infra receptaculum corollæ; STYLI plures, subulati, erecti, vix pubescentes, longitudine staminum; STIGMATA simplicia, fig. 4.

SEMINA ut in sylvestri, at minora, fig. 5.

ROOT annual, striking deep into the earth, of a whitish colour.

STALKS several from one root, laying prostrate on the ground, from nine to twelve inches in length or more, round, downy, and most commonly purplish.

LEAVES alternate, standing on footstalks, covered on both sides with a fine down, slightly rough, of a roundish, kidney-shaped form, usually divided into five or seven roundish lobes, serrated at the edge, having generally on the under side seven ribs, those farthest from the root gradually largest.

LEAF-STALKS round, long, downy, with a slight roughness, grooved on the upper side.

STIPULÆ two, opposite, smallish, lanceolate, pointed, edged with hairs and downy.

FLOWERS generally growing in pairs, connected to flower stalks, which spring from the alæ of the leaves, and which are shorter than the leaf-stalks, thread-shaped, round, downy, and for the most part unequal.

CALYX: a double PERIANTHIUM, the outer one composed of three linear tapering leaves, bluntnish at the point; the inner one bell-shaped, downy, with a slight roughness, divided into five segments, of an oval pointed shape, upright, keeled, the edge serrated and slightly waved, fig. 1.

COROLLA white, striped with reddish veins, PETALS five, of a narrow wedge shape, blunt, notched at the extremity, a little longer than the calyx, upright, nearly sessile, fig. 2.

STAMINA: FILAMENTS numerous, united into one body, the column cylindrical, smooth, shorter than the corolla, at top loose.

ANTHERÆ small, roundish, prickly, hanging down all round, fig. 3.

PISTILLUM: GERMEN orbicular, flattened, placed below the receptacle of the corolla; STYLES numerous, tapering, upright, scarcely downy, the length of the stamina; STIGMATA simple, fig. 4.

SEEDS as in the sylvestris, but smaller, fig. 5.

We meet with this species of Mallow on dry Banks, also under Pales and Walls in great plenty; it is obviously distinguished from the common mallow by having a procumbent stalk, and small white flowers slightly tinged with red.

It continues to blow from June to September.

HALLER and SCOPOLI describe the stalk as creeping; our plant certainly does not creep.





LATHYRUS PRATENSIS. MEADOW VETCHLING.

LATHYRUS Linn. Gen. Pl. DIADELPHIA DECANDRIA.

Stylus planus, supra villosus, superne latior.
Cal. laciniæ superiores 2 breviores.

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

LATHYRUS *pratensis* pedunculis multifloris, cirrhis diphyllis simplicissimis: foliolis lanceolatis.
Linn. Synt. Vegetab. p. 552. Sp. Pl. p. 1033.

LATHYRUS scapis multifloris, foliis lanceolatis, capreolis simplicibus. Haller Hist. 436.

LATHYRUS pratensis. Scopoli Fl. Carniol. p. 64.

LATHYRUS sylvestris luteus, foliis viciæ. Bauhin. Pin. 344.

LATHYRUS luteus sylvestris dumetorum. Bauh. Hist. 2. p. 304. t. 304.

LATHYRUS sylvestris flore luteo. Ger. emac. 1231. Park. 1062. Raii Syn. p. 320. Tare-everlasting, common yellow bastard Vetchling.

Hudson. Fl. Engl. p. 317. ed. 2. Lightfoot Fl. Scot. p. 391. Oeder Fl. Dan. ic. 527.

RADIX perennis, albida, repens.

CAULIS pedalis, etiam tripedalis et ultra, debilis, cirrhis sustentatus, angulatus, subpilosus, ramosus.

FOLIA bina, lanceolata, trinervia, subtus villosula.

PETIOLI trigoni, subpilosæ, longitudine stipularum.

STIPULÆ semisagittatæ, latitudine foliorum, hamis duobus subinde instructi.

PEDUNCULI tetragoni, longi, subobtusiflori.

FLORES lutei, erecti, racemosi, secundi.

PEDICELLI teretes, villosi, longitudine calycis.

CALYX: PERIANTHUM monophyllum, tubulatum, breve, cylindraceum, subpilosum, quinque-dentatum, dentibus acuminatis, inferioribus longioribus, sursum paulisper curvatis, fig. 1.

COROLLA papilionacea, vexillum subemarginatum, reflexum, prope basin superne foveis duabus intus prominentibus notatum, fig. 2. Alæ duæ; apice rotundatae, fig. 3. Carina longitudine alarum, fig. 4.

STAMINA: FILAMENTA diadelpha, simplex et novemfidum, fig. 5, 6. assurgentia; ANTERÆ subrotundæ, flavæ.

PISTILLUM: GERMEN viride, compressum, oblongum; STYLUS erectus, superne latior, apice acuto; STIGMA a medietate styli ad apicem antice villosum, fig. 7. a sculptore male expressum.

PERICARPIUM: Legumen sesquiunciale, compressum, nigricans, continens Semina octo ad duodecim, subrotunda.

ROOT perennial, whitish and creeping.

STALKS a foot high, sometimes even three feet or more, weak, supported by its tendrils, angular, slightly hairy, and branched.

LEAVES growing in pairs, lanceolate, having three ribs, and slightly downy underneath.

LEAF-STALKS three cornered, somewhat hairy, the length of the stipulæ.

STIPULÆ in the shape of an half arrow, the breadth of the leaves, sometimes having two projections behind.

FLOWER-STALKS four cornered, long, supporting about eight flowers.

FLOWERS yellow, upright, growing in a bunch, all one way.

PARTIAL FLOWER-STALKS round, villous, the length of the calyx.

CALYX: a PERIANTHUM of one leaf, tubular, short, cylindrical, somewhat hairy, furnished with five teeth, which are long and pointed, the lowermost longest, and bent a little upwards.

COROLLA papilionaceous, Standard slightly notched, turned back, on the upper side near the base marked with two little cavities which project inwards, fig. 2. Wings rounded at top, fig. 3. Keel the length of the wings, fig. 4.

STAMINA: ten FILAMENTS, rising upwards, nine united together, and one forming a separate body, fig. 5, 6. ANTERÆ roundish and yellow.

PISTILLUM: GERMEN green, flattened, oblong; STYLE upright, broadest above with a pointed top; STIGMA from the middle of the style to the top villous on the fore part, fig. 7. badly expressed in the engraving.

SEED-VESSEL: a Pod an inch and a half long, flattened, of a blackish colour, containing from eight to twelve roundish Seeds.

The following observations on this plant by the ingenious author of Essays relating to Agriculture and rural affairs, will not be unacceptable to such of our readers as are fond of Husbandry and rural improvements; before I had seen his remarks, I had often thought it a plant which at least deserved a trial, and might, in particular soils, be cultivated to advantage. I remember once in particular to have seen a piece of stiff soil belonging to Lord Loughborough, at his seat near Mitcham, which produced an excellent crop of pasturage, consisting chiefly of this plant, and the *Festuca pratensis*.

It grows very frequently in pastures and hedges, and flowers in June and July.

" The common yellow Vetchling, *Lathyrus pratensis*, or Everlasting-Tare, might likewise be on many occasions cultivated with profit by the farmer. It grows with great luxuriance in stiff clayey soils, and continues to yield annually for any length of time, a great weight of forage, which is deemed to be of the very best quality; as it is equally fit for pasture or for hay, the farmer would have it in his power to apply it to the one or the other of these uses, at any period that might best suit his convenience.—It is likewise attended " with

"with this further advantage, that as it continues to grow with equal vigour in the end of summer as in the beginning thereof, it would admit of being pastured upon in the spring, till the middle or even the end of May, should it be necessary, without endangering the loss of the crop of hay: which cannot possibly be done with rye-grass, or any other plant usually cultivated by the farmer, except clover; which is equally unfit for early pasture or for hay. This plant would be the more valuable to the farmer that it grows to the greatest perfection on such soils as are altogether unfit for producing fain-foin; the only plant hitherto cultivated that seems to possess qualities approaching to those of this one.—It must, however, be acknowledged, that the difficulty of procuring seeds of this plant in abundance, must be a very great bar to the general cultivation thereof: for although these ripen very well in our climate, yet the quantity that it produces is so inconsiderable, and the difficulty of getting them separated from the pod is so great, as to make it necessary to gather them by the hand; in which way the quantity obtained must be very trifling. To counterbalance this defect, however, it may be observed, that it is not only an abiding plant, which never leaves the ground where it has been once established; but that it also increases so fast by its running roots, that a very few plants at first put into a field, would soon spread over the whole and stock it sufficiently. If a small patch of good ground is sowed with the seeds of this plant in rows about a foot distant from one another, and the intervals be kept clear of weeds for that season, the roots will spread so much as to fill up the whole patch next year; when the stalks may be cut for green fodder or for hay. And if that patch were dug over in the spring following, and the roots taken out with the hand, it would furnish a great quantity of plants, which might be planted in such fields as you meant to have filled with this, at the distance of two or three feet a-part; which would probably there take root, and quickly overspread the whole field. And as there might always be a sufficient quantity of the roots left to fill again the patch from whence they were taken, it would be ready to furnish a fresh supply the next season, and might thus continue to serve as a nursery for ever afterwards. It appears to me, that this would be the most likely method of propagating this plant with ease; but I have not as yet had sufficient experience thereof to be able either to tell precisely the expence of it, or to answer positively for the success thereof in all cases."

TRIFOLIUM AGARIUM. HOP TREFOIL.

Procumbens. - Willd.

TRIFOLIUM Linn. Gen. Pl. DIADLEPHIA DECANDRIA.

Flores subcapitati. Legumen vix calyce longius, non dehiscens, deciduum.

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

TRIFOLIUM agrarium spicis ovalibus imbricatis: vexillis deflexis persistentibus, calycibus nudis, caule erecto. Linn. Syst. Veg. p. 574. Sp. Pl. 1087. Fl. Suecic. 671.

TRIFOLIUM spicis ovatis densissimis, strepentibus, caulis diffusis. Haller Hist. n. 363.

TRIFOLIUM agrarium. Scopoli Fl. Carn. n. 931.

TRIFOLIUM pratense luteum capitulo Lupuli vel agrarium. Bauh. Pin.

TRIFOLIUM luteum minimum. Ger. emac. 1186. Raii Syn. p. 330. Hop-Trefoil.

Oeder. Fl. D. t. 558.

Hudson Fl. Angl. ed. 2. p. 328.

Lightfoot Fl. Scot. p. 409.

RADIX annua.

CAULIS palmaris aut dodrantalis, plerumque diffusus, teres, villosus, ramulosus, fruticulosus, saepe rubens.

STIPULÆ binæ, ovato-acuminatæ, striatæ.

FOLIA oblongo-cordata, plerumque nuda, nervosa, nervis plurimis, rectis, acute ferrata.

PETIOLI teretes, foliis ipsis paulo breviores.

PEDUNCULI erecti, nudi, petiolis multo longiores.

FLORES quadraginta circiter, imbricatim densissime glomerati, vix manifeste pedicellati, capituli majusculi, subrotundi, primum lutei, demum fuscii.

CALYX: PERANTHIMUM minimum, membranaceum, flavescens, a corolla ægre distingendum, aut separandum, quinquedentatum, dentibus duobus superioribus brevissimis, tribus inferioribus setaceis, pilosis, corolla brevioribus, fig. 1.

COROLLA calyce duplo longior, persistens, Vexillum suberectum, nervosum, margine serratum, peracta florescentia magnitudine augetur, et deorsum flectitur; Alæ conniventes, vexillo breviores: Carina minima, intra alas, iisque brevior, fig. 2.

PERICARPIUM: LEGUMEN corolla testum, membranaceum, monospermum, parietibus tenuissimis, cito corrumpentibus, relicta tantum futura cum mucrone, fig. 4.

SEmen unicum, nitidum, fuscum sive aurantiacum, fig. 5.

ROOT annual.

STALK from six to nine inches in length, generally spreading, round, villous, branched, a little hard or shrubby, often of a reddish colour.

STIPULÆ growing in pairs, oval, pointed, and striated.

LEAVES of an oblong heart-shape, generally smooth, finely rib'd, the ribs straight, sharply sawed about the margin.

LEAF-STALKS round, and somewhat shorter than the leaves themselves.

FLOWER-STALKS upright, naked, much longer than the leaf-stalks.

FLOWERS about forty, standing on very short foot-stalks, which are scarce perceptible, laying very close one over the other, and forming largish heads of a roundish shape, which at first are yellow, and afterwards brown.

CALYX: a PERIANTHIUM very minute, membranous, yellowish, with difficulty distinguished or separated from the corolla, having five teeth, of which the two uppermost are very short, the three lowermost setaceous, hairy, and shorter than the corolla, fig. 1.

COROLLA twice the length of the calyx, permanent; Standard nearly upright, rib'd, the edge serrated, the flowering being over, it becomes increased in size and turns back; Wings closing, shorter than the standard: Keel very small, within the wings and shorter than them, fig. 2.

SEED-VESSEL: a POD covered with the corolla, membranous, containing one seed, the sides being very thin, soon decay, and leave nothing but the future with its point, fig. 4.

SEED single, shining, of a brown or orange colour, fig. 5.

The name of Hop Trefoil has been with much propriety bestowed on this plant, as the little heads formed by the flowers are larger and more resembling the Hop than those of any of the other species.

We are carefully to distinguish it from the *Trifolium procumbens*, than which it is in every respect larger, and less procumbent.

It is by no means an uncommon plant in dry pastures, on the borders of fields, and in gravelly soils; in some fields I have observed it naturally to form a considerable part of the Farmer's crop, which though a small one was judged to make excellent fodder.

It is perhaps one of those plants which merits the further attention of the Husbandman.

June and July are the months in which it usually flowers.

SCOPOLI doubts, and apparently with great propriety, whether the *Trifolium spadiceum* of LINNÆUS be a species distinct from this.



TRIFOLIUM REPENS. DUTCH CLOVER.

TRIFOLIUM *Linnæi Gen. Pl. DIADELPHIA DECANDRIA.*

Flores subcapitati. Legumen vix calyce longius, non dehiscens, deciduum.

Raii Syn. Gen. 24. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

TRIFOLIUM *repens capitulis umbellaribus, leguminibus tetraspermis, caule repente.* *Lin. Syst. Vegetab. p. 572. Sp. Pl. p. 1080. Flor. Suec. n. 665.*

TRIFOLIUM *caule repente; spicis depressis; siliquis tetraspermis.* *Haller Hist. n. 367.*

TRIFOLIUM *repens.* *Scopoli Fl. Carniol.*

TRIFOLIUM *pratense album.* *C. B. Pin. 327.*

TRIFOLIUM *minus pratense, flore albo.* *Ger. emac. 1185. Parkinson 1110. Raii Syn. p. 327.*
White-Flowered Trefoil.

Hudson Fl. Angl. ed. 2. p. 324.

Lightfoot Fl. Scot. p. 404.

RADIX perennis, fibrosa.

CAULES plurimi, repentes, late sparsi, teretes, simplices, glabri, virides, seu purpurascentes.

STIPULÆ ovato-lanceolatae, venofæ, venis purpurascientibus.

FOLIA terna, variabilia, nunc ovata, obtusa, nunc obcordata, emarginata, acute serrata, viridia, seu purpurascens, maculâ lunulatâ albicans plerumque notata.

PEDUNCULI longissimi, erecti, striati.

FLORES plerumque albi, purpurascentes etiam occurunt, glomerati, junioribus erectis, matutinis deflexis, fuscis.

CAPITULA majuscula, praesertim in cultâ planta, sphærica.

CALYX: PERIANTHIUM monophyllum, quinque-dentatum, saepius coloratum, striis decem elevatis notatum, dentibus setaceis, duobus superioribus paulo longioribus, fig. 1.

COROLLA papilionacea, calyce duplo longior; VEXILLUM oblongum, subemarginatum, reflexum, fig. 2. ALÆ duæ, vexillo multo breviores, fig. 3. CARINA brevissima, basi bifida, fig. 4.

STAMINA: FILAMENTA diadelpha, simplex et novem-fidum, fig. 5, 6. ANTERÆ parvæ, luteæ.

PISTILLUM: GERMEN oblongum, teretiusculum; STYLUS subulatus, longitudine germinis; STIGMA flavescens, capitatum, fig. 7.

PERICARPIUM: LEGUMEN oblongum, teres, mucronatum, torulosum, fig. 8. continens

SEMINA duo ad quatuor, fig. 9.

ROOT perennial and fibrous.

STALKS numerous, creeping, spreading wide, round, unbranched, smooth, green, or purplish.

STIPULÆ ovate and pointed, veiny, the veins purplish.

LEAVES growing three together, variable as to their shape, being sometimes ovate and blunt, sometimes inversely heart-shaped and notched at the end, sharply sawed round the edge, of a green or purplish colour, and having most commonly a whitish mark in the centre.

FLOWER-STALKS very long, upright, and striated. FLOWERS generally white, but sometimes purplish, growing in a cluster, the young ones upright, the old ones hanging down and becoming brown.

HEADS large, especially in the cultivated plant, and of a round shape.

CALYX: a PERIANTHIUM of one leaf, having ten teeth, generally coloured, marked with ten ribs, the teeth bristle-shaped, the two uppermost somewhat the longest, fig. 1.

COROLLA papilionaceous, twice the length of the calyx; STANDARD oblong, slightly notched at the extremity, and turning back, fig. 2. WINGS two, much shorter than the standard, fig. 3. KEEL very short, divided at the base, fig. 4.

STAMINA: ten FILAMENTS, one single, the rest united into one body, fig. 5, 6. ANTERÆ small, and yellow.

PISTILLUM: GERMEN oblong, roundish; STYLE tapering, the length of the germen; STIGMA yellowish, forming a little head, fig. 7.

SEED-VESSEL: an oblong, round, jointed pod, fig. 8. terminating in a point and containing

SEEDS from two to four, fig. 9.

The creeping or Dutch Clover may be considered as one of our most valuable British plants, the greatest part of the seed used in this country is imported from Holland, where it is cultivated on account of its seed, and hence it has acquired the name of Dutch Clover; as it is a plant which grows naturally wild in this country, on dry, gravelly, and indifferent soils, it is probable it might also be cultivated for the same purpose in many parts of Great-Britain, where land and labour are cheap, and that to great advantage.

The quantity of seed sold annually in this country is astonishingly great, Messrs. GORDON and DERMER, who do not particularly deal in this article, sell every year forty or fifty tons weight of it.

Those plants which have creeping roots or stalks have the advantage of most others in point of growth, and when a plant of this kind, growing naturally in a barren soil, comes to have the advantage of cultivation, it flourishes amazingly, so does the Dutch Clover, a single seedling of which I have known in a garden to cover more ground than a yard square, in one summer.

Although this plant does not grow so tall as some others, yet the vast number of stalks, leaves, and blossoms which it throws out, produces a great bottom in a pasture, and thereby stamps a particular value on it.

It is not a plant however which makes any great figure in the spring, but its chief excellence consists in its producing herbage in dry summers, late in the season, when most of the grasses are burnt up, it then covers the fields with a beautiful verdure, and affords plenty of food to the cattle, or hay for a second crop.

There is an idea very prevalent among farmers, that ashes alone spread on land will produce this plant in abundance; they do not know, or will not believe, that the plant previously existed in the ground, and is only rendered larger and more conspicuous by the manure.

Of the *Trifolium repens* I have observed two remarkable varieties, viz. one with leaves of a deep purple colour, cultivated in gardens as an ornamental plant, the other proliferous, having small heads of leaves growing out of the flowers, this I found several years ago on the left-hand side of the canal, leading from Limehouse to Bromley; there are likewise several other varieties which depend on the richness and poverty of soil.



Trifolium repens.



Medicago polymorpha.

MEDICAGO ARABICA. HEART MEDICK, or CLAVER.

MEDICAGO Linn. Gen. Pl. DIADELPHIA DECANDRIA. Legumen compressum, cochleatum, Carina corollæ a vexillo deflectens.

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

MEDICAGO polymorpha leguminibus cochleatis, stipulis dentatis caule diffuso. Linn. Syst. Vegetab. p. 577. Sp. Pl. 1097.

MEDICA foliis emarginatis, ferratis, racemis paucifloris, siliquis globosis echinatis. Haller Hist. n. 383.

MEDICAGO polymorpha. Scopoli Fl. Carn. n. 942.

TRIFOLIUM cochleatum folio cordato maculato. Bauhin. Pin. 329.

TRIFOLIUM cordatum Ger. emac. 1190. Park. 1115. Raii Syn. 333. Heart Trefoil or Claver.

Hudson Fl. Angl. ed. 2. p. 331.

RADIX annua, fibrosa.

CAULES plures, pedales, et ultra, procumbentes, angulati, striati, purpurascentes, pilosi, ramosi.

FOLIA terna, obcordata, mucronata, obsoleta ferrata, laevia, maculâ purpurea in medio notata.

PETIOLI superne canaliculati, pilosi.

STIPULÆ binæ, semifagittatæ, serratæ.

FLORES plerumque bini, pedicellati, pedunculis teretibus, pilosis, petiolis brevioribus; *Braetæa* minima, ad basin cujusvis pedicelli, et feta pilosa inter flosculos longitudine florum.

CALYX: PERIANTHUM monophyllum, tubulosum, subcampanulatum, pilosum, semiquinquedidum, laciniis acuminatis, subæqualibus, purpurascensibus, fig. 1.

COROLLA papilionacea, flava; Vexillum subrotundum, emarginatum, reflexum, lineis saturate flavis ad basin notatum, fig. 2. Alæ duæ, parvæ, vexillo breviores, croceæ, apice paulo secedentes. Carina concava, obtusa, alis paulo longior.

STAMINA: FILAMENTA diadelpha, coalita fere ad apices, tubus sursum curvatus; ANTHERÆ minimæ, flavæ, fig. 3, 4.

PISTILLUM: GERMEN viride, oblongum, subtus ubi stylus incipit emarginatum, cito fese spiraliter contorquens, et superne spinulas agens; STYLUS subulatus, erector; STIGMA terminale, minimum, fig. 5, 6.

PERICARPIUM: Legumen subrotundo-cylindraceum, utrinque truncatum, spinulosum, spiraliter contortum, fig. 7.

SEmen majuscum, reniforme, flavescens, fig. 8.

ROOT annual and fibrous.

STALKS numerous, about a foot in length, or more, procumbent, angular, striated, purplish, hairy, and branched.

LEAVES growing three together, inversely heart-shaped, terminated by a short point, faintly sawed, smooth, with a purple spot in the middle of each.

LEAF-STALKS above grooved and hairy.

STIPULÆ two, the shape of half an arrow, and serrated.

FLOWERS growing generally two together, standing on foot-stalks which are round, hairy, and shorter than the foot-stalks; *Braetæa* very small, at the base of each flower-stalk, and a hairy seta or bristle betwixt the flowers of the same length with the flowers.

CALYX: a PERIANTHUM of one leaf, tubular, somewhat bell-shaped, hairy, divided half way down in five segments, which are pointed, nearly equal and purplish, fig. 1.

COROLLA papilionaceous, and yellow; Standard roundish, notched at the end, and turning back, marked at its base with lines of a deeper yellow colour, fig. 2. Wings two, small, shorter than the standard, saffron coloured, separating a little from one another at the tips. Keel hollow, blunt, a little longer than the wings.

STAMINA: FILAMENTS uniting into two bodies almost to the tips, tube bending upward; ANTHERÆ very minute and yellow, fig. 3, 4.

PISTILLUM: GERMEN green, oblong, below where the style begins notched, soon spirally twisting itself, and from its upper part throwing out little spines; STYLE tapering, upright; STIGMA terminal, and very minute, fig. 5, 6.

SEED-VESSEL: a Pod of a roundish cylindrical shape, cut off at each end, spinous, and spirally twisted up, fig. 7.

SEED rather large, kidney-shaped, and yellowish, fig. 8.

The plant here figured is intended to represent the *Trifolium cochleatum folio cordato maculato* of BAUHINE and RAY and the *Medicago polymorpha* var. *arabica* of LINNÆUS; how far it is in itself a variety, how far LINNÆUS and some other authors are justified in making so many varieties of one species*, or how far others are right in dividing one genus into so many species, especially MONSIEUR GERARD, it would ill become me to determine; this plant, and this only of the present tribe as far as I have hitherto seen, is common in the neighbourhood of London; future observation added to culture may perhaps enable me hereafter to speak more decidedly on the subject.

The present plant is subject to considerable variation in size, as also with respect to the brightness of the spots on its leaves.

It flowers in May and June.

On the edges of Charlton Sand-pits it grows in very great plenty, and is not uncommon on banks and the borders of fields in a variety of other places.

When it grows luxuriantly one is tempted to suppose that it would afford good fodder for cattle; it seems at least to deserve a trial.

* As the orbicularis, scutellata, tornata, turbinata, intertexta, arabica, coronata, ciliaris, hirsuta, rigidula, minima, muricata, nigra, laciniata. Linnæi Syst. Vegetab. p. 578.



H Y P E R I C U M A N D R O S Æ M U M . T U T S A N .

HYPERICUM. *Linn. Gen. Pl.* POLYADELPHIA POLYANDRIA.

Cal. 5. partitus, Petala 5. Filamenta multa, in 5 phalanges basi connata, Capsula.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM *Androsænum* floribus trigynis, fructibus baccatis, caule fruticoso ancipiti. *Linn.*
Syst. Veg. p. 583. Sp. Pl. p. 1102.

ANDROSÆMUM maximum frutescens. *Bauh. Pin. 280.*

ANDROSÆMUM vulgare. *Park. 575.*

CLYMENUM Italorum. *Ger. emac. 548.*

HYPERICUM maximum Androsænum vulgare dictum. *Raii Syn.* Tutsan or Park-Leaves.

Hudson Fl. Angl. ed. 2. p. 332.

Lightfoot Fl. Scot. p. 415.

RADIX perennis, crassa, lignosa, rubens, fibras longissimis emittens.	ROOT perennial, thick, woody, of a reddish colour, sending out very long fibres.
CAULES tuffruticosi, ancipites, bipedales et ultra, ramosi, rubentes, glabri.	STALKS somewhat shrubby, slightly winged, two feet high and upwards, branched, of a reddish colour and smooth.
FOLIA opposita, sessilia, ovata, integerrima, lœvia, inferne pallidiora, venis plurimis parum extantibus reticulata, per ætatem rubicunda, inferioribus plerumque minoribus.	LEAVES opposite, sessile, ovate, entire, smooth, paler on the under side, reticulated with numerous veins which project but little, becoming through age of a reddish or purple colour, the lowermost generally the least.
FLORES flavi, pro ratione plantæ parvi, in <i>Cyma</i> variè divisa dispositi.	FLOWERS of a yellowish colour, small for the size of the plant, disposed in a <i>Cyma</i> variously divided.
CALYX: PERIANTHUM quinquepartitum, laciniis ovatis, obtusis, subnervosis, inæqualibus, erectis, demum reflexis.	CALYX: a PERIANTHUM deeply divided into five segments, which are ovate, obtuse, somewhat rib'd, unequal, upright, finally turned back.
COROLLA: PETALA quinque, ovata, obtusa, subæqualia, calyce paulo longiora, patentia, concaviuscula, apicibus paululum inflexis, decidua.	COROLLA: five PETALS, ovate, obtuse, nearly equal, a little longer than the calyx, spreading, somewhat hollow, the tips bending a little inward, deciduous.
STAMINA: FILAMENTA plurima, ultra quadraginta, corollâ longiora; ANTERÆ parvæ, subrotundæ.	STAMINA: FILAMENTS numerous, more than forty, longer than the corolla; ANTERÆ small and roundish.
PISTILLUM: GERMEN subrotundum, nitidum, flavescens; STYLI tres, longitudine germinis, erecti; STIGMATA parva, rotundata.	PISTILLUM: GERMEN roundish, shining, yellowish; STYLES three, the length of the germen, upright; STIGMATA small and roundish.
PERICARPIUM: CAPSULA ovato-rotundata, primo baccæformis, e flavo virescens, dein ruberrima, demum nigricans, exfucca, trilocularis, seminibus plurimis minimis referta.	SEED-VESSEL: a CAPSULE of a roundish egg-shape, at first assuming the appearance of a berry of a yellowish green colour, afterwards of a bright red colour, lastly blackish, having three cavities, which are filled with numerous small seeds.

The French call this plant *Toute saine*, *Allheal*, (*vide Tourn. Hist. des Pl.*) whence as PARKINSON observes, we have evidently borrowed our English name of *Tutsan*. They appear to have been equally fond of attributing vulnerary qualities to plants as our countryman GERARD, but perhaps on no better grounds, the *Tutsan* and the *Allheal* being now equally neglected. Its other name of *Park-Leaves*, by which it is less frequently called, it has doubtless acquired from being commonly found in Parks.

We may remark of the *Androsænum*, that neither HALLER, LINNÆUS, JACQUIN, SCOPOLI, or CEDER, enumerate it in their respective Floras.

In many parts of *England* it is by no means an uncommon plant; it is chiefly found in or near Woods. About *London* all our *Hypericums* abound more than this, which I have met with in one Wood only, viz. the *Oak of Honour* Wood, near *Peckham-Rye*, adjoining *Norwood*. It flowers in July and August, and ripens its seed-vessels, which have much the appearance of berries, in September.

It is not uncommon in Gardens.

HYPERICUM HIRSUTUM. HAIRY ST. JOHN'S WORT.

HYPERICUM Linn. Gen. Pl. POLYADELPHIA POLYANDRIA.

Cal. 5-partitus, Petala 5, Filamenta multa, in 5 phalanges basi connata.
Capula.

Raii Syn. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM hirsutum floribus trigynis, calycibus ferrato-glandulosis, caule tereti erecto, foliis ovatis subpubescentibus. Linn. Syst. Vegetab. Sp. Pl. 1105. Fl. Suec. n. 682.

HYPERICUM foliis ovatis, per oram punctatis, calycibus lanceolatis, ferratis, globuligeris, Haller Hist. n. 1042.

HYPERICUM hirsutum Scopoli Fl. Carniol. p. 92. n. 945.

ANDROSÆMUM hirsutum. Bauhin. Pin. 280.

HYPERICUM Androsæmum dictum. Bauh. Hist. III. 382.

ANDROSÆMUM alterum hirsutum. Col. ephr. 1. p. 75. t. 74.

ANDROSÆMUM ascyon dictum, caule rotundo hirsuto. Moris. Hist. 2. p. 971. f. 5. t. 6. f. 11.

HYPERICUM villosum erectum, caule rotundo. Tournefort Inst. 255. Raii Syn. Tutsan St. John's Wort.

Hudson Fl. Angl. ed. 2. p. 333. Lightfoot Fl. Scot. p. 419.

RADIX	perennis, fibroſa, fibris fuscis, rigidis, sub-lignofis.	ROOT	perennial, fibrous, the fibres brown, rigid, and somewhat woody.
CAULIS	sesquipedalis ad tripedalem, erectus, solidus, rubicundus, teres, pubescens, plerumque simplex, ramosus etiam occurrit, rarius vero quam in hyperico perforato.	STALK	a foot and a half to three feet high, upright, solid, reddish, round, hairy, or downy, generally simple, but sometimes branched, though much less so than the common Saint John's Wort.
FOLIA	alterne opposita, oblonga, obtusa, sessila, utrinque villosula, margine minutim ciliata, septemnervia, punctis diaphanis minutissimis per totam superficiem adspersa.	LEAVES	alternately opposite, oblong, obtuse, sessile, hoary on each side, the edge finely ciliated, marked with seven ribs, and very minute transparent dots spread all over its surface.
RAMI:	rudimenta rami constantes foliolis quatuor decussatis in axillis foliorum saepius observantur, haec vero aliquando omnino desunt, et non-nunquam in ramos producuntur.	BRANCHES	rudiments of branches consisting of four leaves forming a cross are generally observed in the alæ of the leaves, these however are sometimes wanting, and sometimes are drawn out into branches.
FLORES	flavi, terminales, in panicula oblonga, subspicata.	FLOWERS	yellow, terminal, in an oblong panicle, forming a kind of spike.
CALYX:	PERANTHİUM quinquepartitum; laciniis lanceolatis, bisulcis, margine glandulosis, foliola etiam et gemmæ calyci subiecta glandulis nigris pedicellatis ornantur, fig. 1.	CALYX:	a PERANTHİUM divided into five segments; which are lanceolate, with two grooves, and glandular on the edge, the small leaves and buds below the calyx are also ornamented with black glands placed on footstalks, fig. 1.
COROLLA:	PETALA quinque, flava, oblongo-ovata, obtusa, patentia, striata, fig. 2.	COROLLA:	five PETALS of a yellow colour and oblong oval shape, blunt, spreading and striated, fig. 2.
STAMINA:	FILAMENTA viginti ad triginta, in tres phalanges obscure divisa, capillaria, recta, flava, corolla breviora: ANTERÆ subrotundæ, didymæ, flavæ, fig. 3.	STAMINA:	from twenty to thirty FILAMENTS obscurely divided into three bundles or fasciculi, very fine, straight, yellow, and shorter than the Corolla; Antheræ roundish, double, yellow, fig. 3.
PISTILLUM:	GERMEN subrotundum. STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia, fig. 4.	PISTILLUM:	GERMEN roundish: STYLES three, simple, spreading, the length of the stamens. STIGMATA simple, fig. 4.
PERICARPIUM:	Capula oblonga, trilocularis, trivalvis, fig. 5, 6.	SEED-VESSEL	an oblong capsule of three cavities and three valves, fig. 5, 6.
SEMINA	plurima, minima, fig. 7.	SEEDS	numerous and very minute, fig. 7.

The more ancient Botanists paying but little regard to the nicety of distinction, overlooked this species of *Hypericum*; COLUMNA, possessing greater discernment than his predecessors, appears first to have figured and described it: by superficial observers it may easily be mistaken for the common St. John's Wort, but differs from it in being a taller plant, having a stalk perfectly round and hoary, and the edges of the calyx beset with black glands; it is also more apt to grow in woods and coppices, though it is frequently met with in hedges.

It flowers in July and August.

It grows plentifully in a field just beyond Dulwich-College, also about the Oak of Honour Wood near Peckham, and most of the Woods near Town.



Hypericum hirsutum

HYPERICUM HUMIFUSUM. TRAILING ST. JOHN'S WORT.

HYPERICUM Linn. Gen. Pl. POLYADELPHIA POLYANDRIA.

Cal. 5. partitus. Petala 5. Filamenta multa, in 5. phalanges basi connata. Capsula.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM humifusum floribus trigynis axillaribus, solitariis, caulis ancipitibus prostratis filiformibus, foliis glabris. Linn. Syst. Vegetab. p. 332. Sp. Pl. 1105. Fl. Suecic. 681.

HYPERICUM caule prostrato, foliis ovatis, calycibus ferratis punctatis. Haller Hist. p. 5. n. 1039.

HYPERICUM minus supinum vel supinum glabrum. C. Bauh. Pin. 279.

HYPERICUM minus supinum. Park. 572.

HYPERICUM supinum glabrum. Ger. emac. 541. Raii. Syn. 342. The least trailing St. John's Wort.

Hudson Fl. Angl. ed. 2. p. 332.

Lightfoot Fl. Scot. p. 418.

RADIX perennis, lutescens, fibrosa.

CAULES plures ex eadem radice, spithamæi, procumbentes, teretes, vix manifeste ancipites, lœves, rubentes, summitate ramosi.

FOLIA opposita, oblongo-ovata, obtusa, glabra, integræ, margine punctis nigris notata.

CALYX: PERIANTHIUM quinquepartitum, laciniis magnis, inæqualibus, ovato-oblongis, margine reflexis et glandulis ferrato punctatis, mucrone rufo terminatis, fig. 1.

COROLLA: PETALA quinque, oblonga, flava, obtusa, calyce paulo longiora, margine glandulis punctata, fig. 2.

STAMINA: FILAMENTA raro ultra viginti, in tres, phalanges distincte divisa; ANTERÆ minimæ, flavæ, fig. 3.

PISTILLUM: GERMEN subrotundum, STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia, fig. 4.

PERICARPIUM: CAPSULA oblongo-ovata, membranacea, trilocularis, immatura ruberrima.

SEMINA plurima, minima.

ROOT perennial, of a yellowish colour and fibrous.

STALKS several from the same root, about half a foot in length, procumbent, round, scarce perceptibly two edged, smooth, of a reddish colour, and branched at top.

LEAVES opposite, oblong, ovate, obtuse, smooth, entire, dotted on the edge with black.

CALYX: a PERIANTHIUM divided into five segments, which are large, unequal, ovato-oblong, the edge turned back and sawed as it were with black glands, terminating in a red point, fig. 1.

COROLLA: five oblong yellow PETALS, blunt at the end, a little longer than the calyx, and dotted on the edge with glands, fig. 2.

STAMINA: FILAMENTS seldom more than twenty, distinctly divided into three bodies; ANTERÆ very small and yellow, fig. 3.

PISTILLUM: GERMEN roundish; STYLES three, simple, spreading, the length of the stamina; STIGMATA simple, fig. 4.

SEED-VESSEL: an oblong ovate CAPSULE, membranous, of three cavities, of a very bright red colour before it is ripe.

SEEDS numerous and very minute.

This is the least of all our *Hypericums*, but scarcely inferior to any of them in beauty and delicacy.

It grows frequent enough, in gravelly pastures, in fields that have long lain fallow, and likewise on heaths, especially where the soil is moist and clayey.

It flowers in June, July, and August.

SCOPOLI without any good grounds, suspects it to be a monstrous variety of the *Hypericum perforatum*, from which it differs almost as much as it is possible for one species to differ from another.

162



PICRIS ECHIOIDES. OX-TONGUE.

PICRIS *Linnæi Gen. Pl. SYNGENESIA POLYGAMIA AEQUALIS.*

Recept. nudum. Cal. calyculatus. Pappus plumosus. Sem. transversim fulcata.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO; NATURA PLENO LACTESCENTES.

PICRIS *echioides* perianthiis exterioribus pentaphyllis, interiore aristato majoribus. *Linnæi Syst. Vegetab. p. 593. Spec. Plant. 1114.*

HIERACIUM *echioides* capitulis cardui benedicti. *Bauhin Pin. 128.*

BUGLOSSUM *luteum. Gerard emac. 798.*

LINGUA BOVIS. *Parkinson 800. Raii Syn. p. 196, Lang de bœuf.*

Hudson Fl. Angl. ed. 2. p. 342.

RADIX annua, ramosa.

ROOT annual, and branched.

CAULIS bi aut tripedalis, ramosissimus, ramis divaricatis, erectus, rubens, striatus, spinosus, spinis plurimis, horizontalibus, apice hematicis.

STALK two or three feet high, very much branched, the branches divaricating, upright, of a reddish purple colour, striated, and spinous, the spines numerous, horizontal, and hooked at the extremity.

FOLIA amplexicaulia, oblonga, acuta, tuberculosa, spinosa.

LEAVES embracing the stalk, oblong, pointed, covered with tubercles and spines.

PEDUNCULI fulcati, versus apicem sensim incrassati.

FLOWER-STALKS grooved, and gradually enlarged towards the extremity.

CALYX communis duplex, exterior maximus, pentaphyllus, Involucro similis, foliolis cordatis, spinosis, interior imbricatus, squamæ exteriore, paucæ, minimæ, inæquales, interiores erectæ, æquales, aristatæ, fig. 1, 2, carinatæ, carinâ cum aristâ hispidis, setæ inferiores unculis quatuor apice instructis, fig. 3, superiores spinosæ, simplices, longiores.

CALYX common to many florets, and double; the exterior one large, and composed of five heart-shaped prickly leaves, which resemble an Involucrum; the inner one imbricated; the outermost scales few, small, and uneven; the innermost upright, equal, terminating with an arista, fig. 1, 2, keeled, the keel together with the arista hispid, the little spines on the lower part terminating in four small hooks, fig. 3, those on the upper part simple and longer.

COROLLA composita, *Corollulae* hermaphroditæ, tubulosæ, flavæ; Tubus tenuis, pilosus, fig. 4, albidus; Limbus quinquedentatus, dentibus inæqualibus.

COROLLA compound; the Florets hermaphrodite, and yellow; the Tube slender, hairy, fig. 4, and whitish; the Limb terminated by five unequal teeth.

STAMINA: FILAMENTA quinque, capillaria, brevissima: ANTERÆ in tubum tenuem, flavum, coalitæ.

STAMINA: five FILAMENTS, very fine and short: ANTERÆ united in a slender yellow tube.

PISTILLUM: GERMEN oblongum, lave, album: STYLUS filiformis, antheris longior: STIGMATA duo, reflexa.

PISTILLUM: GERMEN oblong, smooth, and white: STYLE thread-shaped, and longer than the antheræ: STIGMATA two, turning back.

SEMEN oblongum, rufum, transversim minutissime striatum.

SEED oblong, of a reddish orange colour, very finely striated transversely.

PAPPUS stipitatus, pilosus, fig. 5.

DOWNS standing on a foot-stalk, and hairy, fig. 5.

The only use to which we find this singular plant to have been applied, is as a pot-herb, *Raii Hist. p. 233*, to which purpose its appearance is certainly no recommendation.

It grows not unfrequently on banks, on the edges of fields, and in woods that have been cut down; and flowers in June and July.



Sonchus oleraceus

Scrophulariaceae



St. John's Wort

HYPOCHÆRIS RADICATA. LONG-ROOTED HAWKWEED.

HYPOCHÆRIS Lin. Gen. Pl. SYNG. POLYGAMIA ÆQUALIS. Recept. paleaceum. Cal. subimbricatus. Pappus plumosus.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOCHÆRIS radicata foliis runcinatis obtusis scabris, caule ramoso nudo lævi, pedunculis squamofisis. Linn. Sp. Pl. p. 1140. Fl. Suecic. n. 709.

HYPOCHÆRIS foliis semipinnatis hirsutis, caule nudo, brachiato. Haller Hist. p. 3. n. 3.

ACHYROPHORUS radicatus. Scopoli. Fl. Carn. n. 987.

HIERACIUM Dentis leonis folio obtuso majus. Bauhin. Pin. 127.

HIERACIUM longius radicatum. Lob. ic. 238. Gerard. emac. 298. Parkinson. 790. Raii. Syn. long-rooted Hawkweed.

Hudson Fl. Angl. ed. 2.

Oeder. Fl. Dan. ic. 150.

Lightfoot Fl. Scot. p. 443.

RADIX perennis, crassitie digiti minimi, profunde in terram descendens, albida, plerumque simplex, lactescens.

FOLIA radicalia, supra terram expansa, planiuscula, oblonga, obtusa, sinuato-dentata, dentibus subobtusis, hirsuta, pilis simplicibus, erectis, e punctis prominulis prodeuntibus, caulinata nulla.

CAULES sæpe plures ex eadem radice, pedales aut bipedales, suberecti, nudi, squamis solum brevibus, ovato-acutis, ciliatis, ad exortum ramorum instructi, glaberrimi, glauci, substriati, tenaces, solidi, ramosi.

PEDUNCULI longi, squamis paucis obfiti, versus apicem paululum incrassati.

CALYX communis imbricatus, squamis ovatis, acutis, glabris, apice rufis, carinâ ciliatâ pilis rigidulis, fig. 1.

COROLLA Composita, imbricata; Corollulis hermaphroditis, æqualibus, numerosis, Propria monopetala, ligulata, truncata, quinque-dentata, tubo apice piloso, fig. 2, 3.

STAMINA: FILAMENTA quinque, capillaria; ANTHERÆ in tubum coalitæ, flavæ.

PISTILLUM: GERMEN ovatum; STYLUS filiformis, longitudine Staminum; STIGMATA duo, reflexa.

SEmen oblongum, rufum, striatum, fig. 5.

PAPPUS stipitatus, plumosus.

RECEPTACULUM paleaceum, paleæ longæ, nitidæ, membranaceæ, concavæ, fig. 4.

ROOT perennial, the thickness of the little finger, running deeply into the earth, generally simple, of a whitish colour, and milky within.

LEAVES next the root expanded on the ground, flatish, oblong, obtuse, sinuated and toothed (the teeth bluntnish) hirsute, the hairs simple, upright, and proceeding from little prominent points; stalk leaves none.

STALKS often several from the same root, one or two feet high, nearly upright, naked, instead of leaves having only short, oval, pointed scales, edged with hairs at the fitting on of the branches, very smooth, glaucous, somewhat striated, tough, solid, and branched.

FLOWER-STALKS long, beset with a few scales, towards the top a little thickened.

CALYX common to many florets, composed of scales which are ovate, pointed, smooth, reddish at top, the keel edged with stiffish hairs, fig. 1.

COROLLA compound, the florets laying one over another, hermaphrodite Florets equal and numerous; each Floret monopetalous, tubular at bottom and spreading at top, cut off at the extremity and terminating in five teeth, the tube hairy at top, fig. 2, 3.

STAMINA: five FILAMENTS, very fine; ANTHERÆ uniting in a tube, of a yellow colour.

PISTILLUM: GERMEN ovate; STYLE thread-shaped, the length of the Stamina; STIGMATA two, turning back.

SEED oblong, reddish, and finely grooved, fig. 5.

DOWN standing on a foot-stalk and feathery.

RECEPTACLE chaffy, chaff long, shining, membranous, and hollow, fig. 4.

This species of *Hypochæris* receives its name of *radicata* from the length of its root, by which it is particularly distinguished from the *Leontodon autumnale*, LINN. or *Hieracium radice succisa* of BAUHIN; in its fructification it agrees with the *Hypochæris glabra* already figured, size excepted, the same membranous Paleæ so observable in that plant serve equally to characterize the genus in this species, which is altogether as common with us as the other is scarce.

It grows on dry banks, also on heaths, in meadows and pastures, and in the early part of the Summer its blossoms render it a very conspicuous plant in those situations.

In barren soils, particularly on heaths, it is much smaller than the plant here figured, but its hairiness and the size of its blossoms will always prevent its being mistaken for the *Hypochæris glabra*.



Sanson. Sculps.

HYPOTHÆRIS GLABRA. SMALL-FLOWERED HAWKWEED.

HYPOTHÆRIS Lin. Gen. Pl. SYNGENESIA POLYGAMIA ÆQUALIS.

Receptaculum paleaceum. Cal. subimbricatus. Pappus plumosus.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOTHÆRIS *glabra*, calycibus oblongis imbricatis, caule ramoso nudo, foliis dentato-sinuatis.
Lin. Syst. Vegetab. p. 601. Sp. Pl. p. 1140.

HYPOTHÆRIS foliis glabris semipinnatis. Haller. Catal. Plant. Gotting. p. 421, Hist. Plant addend.
ad tom. 1. v. 3. p. 180.

HIERACIUM minus dentis leonis folio oblongo glabro. Bauh. Pin. 127.

HYPOTHÆRIS chondrillo folio, parvo flore. Vaillant. aët. 1721. p. 214.

HIERACIUM parvum in arenosis nascens, seminum pappis dense radiatis. Raii. Syn. 166.

HIERACIUM minimum. Col. eph. I. 27. ic.

Hudson Fl. Angl. p. 303. ed. 2. p. 347.

Oeder Fl. Dan. Ic. 424.

Lightfoot Fl. Scot. p. 442.

RADIX annua, crassitie pennæ coracis, fusiformis,
paucis fibrillis instructa, pallide fusca.

FOLIA radicalia plurima, supra terram expansa, longitudine minimi digiti, et ejusdem circiter latitudinis, sinuato-dentata, ad apicem paulo latiora, glabriuscula, margine præsertim pilis hispidulis ciliata, lactescens; *caulina* pauca, minima.

CAULES plerumque plures, spithamei, suberefti, in duos vel tres ramos divisi, glauci, teretes, subnudi.

PEDUNCULI squamosi, sub floribus paululum incraffati.

FLORES minimi, lutei.

CALYX communis, primum cylindraceus, peracta flore centiæ oblongo conicus, magnus; squamae læves, imbricatim positæ, ovato-lanceolatae, inæquales, apicibus rubris.

COROLLA composita, imbricata, uniformis; corollulis hermaphroditis, æqualibus, numerosis; propria monopetala, tubus infundibuliformis, apice hispidulus, fig. 3. limbus planus, quinque-dentatus, fig. 2.

STAMINA: FILAMENTA quinque, in tubum coalita, fig. 4.

PISTILLUM: GERMEN infra corollam propriam, fig. 6. STYLUS filiformis, longitudine statim minum: STIGMATA duo reflexa, fig. 5.

RECEPTACULUM paleaceum, paleæ concavæ, lanceolatae, acuminatae, nitidæ, longitudine pappi, deciduae, fig. 1.

SEMINA sublinearia, basi acuminata, castanea, fig. 7. lente visa lineata, scabra, fig. 8. in radio sef. filia, in disco petiolata.

PAPPUS inæqualis, plumosus, rigidulus, fig. 9.

ROOT annual, about the thickness of a crow quill, tapering, furnished with few fibres, of a pale brown colour.

LEAVES of the root numerous, spread on the ground, about the length of the little finger, and of the same breadth, sinuated, or deeply indented, a little broadest at top, smooth, but not perfectly so, the edges particularly, being thinly beset with stiffish hairs; those on the stalk few, and very minute.

STALKS usually several, about seven inches high, nearly upright, divided into two or three branches, round, almost naked, and of a glaucous colour.

FLOWER-STALKS scaly, a little thickened under the flower.

FLOWERS very small, and yellow.

CALYX common to many flowers, at first cylindrical, when the flowering is over, becoming of an oblong conical shape, and large; the scales smooth, placed one over another, of an oval pointed shape, uneven, the tips red.

COROLLA compound, the florets placed one over the other, of an uniform shape, hermaphrodite, equal, and numerous; each floret monopetalous; the tube funnel-shaped, with a few stiffish hairs at top, fig. 3. the limb flat, with five teeth, fig. 2.

STAMINA: five FILAMENTS united into a tube, fig. 4.

PISTILLUM: GERMEN placed beneath each single floret, fig. 6. STYLE thread-shaped, the length of the stamena: STIGMATA two, bending back, fig. 5.

RECEPTACLE chaffy, chaff hollow, narrow, pointed, shining, the length of the down, and deciduous, fig. 1.

SEEDS nearly linear, tapering to a point at bottom, of a chefnut colour, fig. 7, viewed with a magnifier, finely grooved, and rough, fig. 8. those in the circumference sessile, those in the centre standing on footstalks.

DOWN uneven, feathered, and stiffish, fig. 9.

In the third edition of RAY's *Synopsys*, there is an accurate account given of this plant, which he informs us, he omitted in his *Hist. Plant.* not being certain at that period, whether it was not a variety of some other plant of the same family. It must be admitted, that many of the plants of this class, very much resemble one another at first sight, whence the student is apt to consider them as a difficult tribe: but however strongly the objection of a similarity of habit may be urged against the *Hypothærus glabra*, whoever has once seen it in blossom, will never mistake it for any other; the flowers being remarkably small for a plant of this kind, not exceeding the size of a silver threepence, while the heads containing the seeds, are altogether as large, in proportion to the size of the plant. This similarity of habit, may be one cause why this plant is not oftener found; but a more particular one, perhaps, is the short time of the flower's expansion, as it does not open till about nine of the clock in the morning, and shuts again about one or two in the afternoon.

HALLER's account of the seeds of this plant is very just: those in the centre have foot-stalks, and those in the circumference none; hence this plant unites those genera, whose characters are drawn from this circumstance.

I have found this species of *Hypothærus* in tolerable abundance on Blackheath, particularly under Greenwich-Park wall, on the South side. By RAY it is mentioned to grow, on the authority of DOODY, in the fields between Kingston and Richmond; by Mr. HUDSON, about Bristol; near Norwich, by Mr. PITCHFORD; and in Scotland, though rarely, by Mr. LIGHTFOOT.

It delights in a gravelly or sandy soil, and exposed situation; and flowers in June.

CARDUUS MARIANUS. MILK THISTLE.

CARDUUS Lin. Gen. Pl. SYNGENESIA POLYGAMIA AQUALIS.

Calyx ovatus, imbricatus squamis spinosis. Receptaculum pilosum.

Raii Syn. Gen. 18. HERBÆ FLORE EX FOSCOLIS FISTULARIBUS COMPOSITO, SIVE CAPITATÆ.

CARDUUS *marianus* foliis amplexicaulibus hastato pinnatifidis spinosis; calycibus aphyllis: spinis canaliculatis duplicato spinosis. Lin. Syst. Vegetab. p. 605. Sp. Pl. 1153

SILYBUM nervis foliorum albis. Haller Hist. n. 181.

CIRSIUM maculatum. Scopoli Fl. Carniol. p. 130.

CARDUUS albis maculis notatus vulgaris. Bauhin Pin. p. 281.

CARDUUS mariæ. Gerard emac. 1150.

CARDUUS mariæ vulgaris. Parkinson 976.

Raii Synop. p. 195. Common Milk Thistle, or Ladies Thistle.

Hudson Fl. Angl. ed. 2. p. 353.

Lightfoot Fl. Scot. p. 454.

RADIX annua.

FOLIA radicalia supra terram expansa, pedalia, bipedalia, et ultra, pinnatifido sinuata, nitida, margine spinosa, superne venis albis reticulatis picta, subinde vero immaculata, *Caulina* amplexicaulia, patentia, suprema recurvata, basi cauli adpressa.

CAULIS tripedalis, ad orgyalem, ramosus, inferne crassitie digitii intermedii, tomentosus, fuscatus, superne nudus, striatus.

FLORES solitarii, magni purpurei.

CALYX: Folia quæ calycem componunt varia, sunt, inferiora nempe rotundata, spinis ciliata; intermedia utrinque ad basin spinis ciliata, acuminata, patentia, rigida, superne canaliculata, spina flavescente terminata; superiora et interiora lanceolata, inermia, apice purpurea, marginibus fissis, fig. 1, 2, 3.

COROLLULÆ infundibuliformes, tubo tenuissimo, curvato, albo, fig. 4. Limbo eretto, quinquefido, basi subglobofo, nitido intus melleum liquorem fundente, lacinias linearibus, æqualibus.

STAMINA: FILAMENTA quinque, capillaria, brevissima: ANTHERÆ purpureæ, in tubum tenuissimum coalitæ, fig. 6.

PISTILLUM: GERMEN ovatum, compressum, album: STYLUS filiformis, staminibus longior, prope apicem circulo villorum coronato, dein utrinque fulcato et apice bifido, fig. 7.

SEMINA plurima, ovata, subangulata, nitida, nigricantia, pappo obliquo, rigidulo, simplici, albido coronata.

RECEPTACULUM pilosum.

ROOT annual.

LEAVES next the root, expanded on the ground, from one to two feet or more in length, finuated, and pinnatifid, shining, the edge spinous, on the upper side painted with white veins, which form a kind of net-work, but sometimes wholly green; leaves on the stalk partly surrounding the stem, spreading, the uppermost leaves bent back, the base of each pressed close to the stalk.

STALK from three to six feet high, branched, at bottom about the thickness of the middle finger, downy, grooved, at top naked, and finely channelled.

FLOWERS one on each stalk, large and purple.

CALYX. The leaves which compose the calyx are various; the lowermost are of a roundish shape, and edged with spines; the middle ones edged with spines towards the bottom, and running out to a point, spreading, rigid, hollow on the upper side, and terminating in a yellowish spine; the upper innermost leaves lanceolate, without spines, purple at top, and notched on the edges, fig. 1, 2, 3.

FLORETS funnel-shaped; tube very slender, bent, and white, fig. 4. Limb erect, divided into five segments, at bottom somewhat globular, and secreting a honey liquor within, the segments linear, and equal in length.

STAMINA: five FILAMENTS, very short, and fine: ANTHERÆ purple, united into a very slender tube, fig. 6.

PISTILLUM: GERMEN oval, flattened, and white: STYLE thread-shaped, longer than the stamens, crowned near the top with a circle of short hairs, from thence grooved on each side, and bifid at top, fig. 7.

SEEDS numerous, oval, somewhat angular, shining, of a blackish colour, crowned with a stiffish, simple, white down, growing obliquely.

RECEPTACLE hairy.

The beautiful milk-white veins which form an irregular net-work on the upper side of the leaves of this species of *Thistle*, joined to its grandeur, render it an object which strikes the attention of most: and where these veins exist, they serve also very well to characterise the plant: the leaves however are frequently wholly green; in which case, it becomes necessary to have recourse to some of its other characters, than which none are more conspicuous than the strong spines which defend the blossom.

The seeds are large, and contain a portion of oil, whence they have sometimes been made use of in emulsions; but they more often serve as food for the Goldfinch, and other granivorous birds.

It is a very common plant on our banks, by the sides of roads, and among rubbish, and flowers in May and June. The variety with green leaves, I have observed on the banks near *Kennington* turnpike.

Did it not occupy so much space, its beauty would recommend it as a garden plant.



Carduus mariannus

Sanson Sculp'

BIDENS CERNUA. NODDING WATER-HEMP-AGRIMONY.

BIDENS Linn. Gen. Pl. SYNGENESIA POLYGAMIA AEQUALIS. Recept. paleaceum. Pappus aristis erectis scabris. Cal. imbricatus. Cor. rarius flosculo uno alterne radiante instructus.

Raii Syn. Gen. 8. HERBÆ FLORE COMPOSITO DISCOIDE SEMINIBUS PAPPO DESTITUTIS CORYMBIFERÆ DICTÆ.

BIDENS cernua foliis lanceolatis amplexicaulibus floribus cernuis seminibus erectis. Linn. Syst. Veg. p. 610.

BIDENS foliis sessilibus serratis, floribus nutantibus circumvallatis. Haller Hist. 120.

BIDENS cernua Scopoli Fl. Carniol. p. 176. n. 2.

CANNABINA aquatica folio non diviso. Bauh. Pin. 321.

VERBESINA pulchriore flore luteo. I. B. II. 1074.

EUPATORIÆ cannabinæ foeminae varietas altera. Ger. emac. 711.

EUPATORIUM aquaticum folio integro. Parkins. 596.

VERBESINA minima. Dillen. Cat. Gifs. 167. et App. 66. Raii Syn. ed 3. t. 7. f. 2.

Raii Syn. p. 187. Water-Hemp-Agrimony with an undivided leaf.

Hudson Fl. Angl. ed. 2. p. 356.

Lightfoot Fl. Scot. p. 463.

RADIX annua, fibrosa, fibris plurimis, majusculis, alte descendentibus.	ROOT annual, and fibrous, the fibres numerous, large, branched, running deep.
CAULIS pedalis, bipedalis, et ultra, erectus, ramosus, hispidulus, purpurascens, rubro punctatus, inferne teres, superne sulcato-striatus, rami oppositi, subrecti.	STALK from one to two feet high or more, upright, branched, somewhat hispid, purplish, dotted with red, below round, above striated, the branches opposite and nearly upright.
FOLIA opposita, indivisa, modice connata, ovato-lanceolata, patentia, ferrata, utrinque laevia.	LEAVES opposite, undivided, moderately connate, ovato-lanceolate, spreading, serrated, and smooth on both sides.
PEDUNCULI striati.	FLOWER-STALKS striated.
FLORES e luteo virescentes, demum cernui, plerumque radiati.	FLOWERS of a yellowish green colour, finally drooping, generally radiated.
CALYX communis foliaceus, foliolis circiter septem, linear-lanceolatis, ferrulatis, nervosis, reflexis, corollâ longioribus.	CALYX common to all the florets leafy, consisting of about seven leaves, which are of a shape betwixt linear and lanceolate, finely sawed at the edge, rib'd, turning back and longer than the corolla.
COROLLA: PETALA exteriora decem circiter, oblongo-ovata, acutiuscula, nitida, e flavo-virescentia, apice, inflexa, lineis parallelis nigricantibus picta, exempta margine; FLOSCULI in disco numerosi, æquales, hermaphroditi, infundibuliformes, flavi; <i>Tubus</i> cylindraceus, longitudine limbi seu paulo longior, <i>Limbus</i> campanulatus, quinquedentatus, dentibus subsubreflexis, fig. 1, 2.	COROLLA: the exterior PETALS about ten in number, of an oblong ovate shape, somewhat pointed, and bending in at the top, of a yellowish green colour, shining and marked with blackish parallel lines except the margin, the FLOWERS in the centre numerous, equal, hermaphrodite, funnel shaped and of a yellow colour; the <i>Tube</i> cylindrical, the length of the limb or a little longer, the <i>Limb</i> bell-shaped, having five teeth which turn somewhat back, fig. 1, 2.
STAMINA: FILAMENTA quinque, capillaria; ANTHERÆ nigricantes, in tubum laxum coalitæ, fig. 3.	STAMINA: five FILAMENTS, very fine; ANTHERÆ blackish, forming a loose tube, fig. 3.
PISTILLUM: GERMIN angulatum, subconicum, albidum, apice truncatum, superne e quatuor angulis, aristis quatuor longitudine fere flosculi instructum, fig. 6.	PISTILLUM: GERMIN angular, somewhat conical, whitish, cut off at top, furnished above with four beards or awns proceeding from the four angles almost the length of the flower, and beset with little hooks bending backward, fig. 6.
SEMEN olivaceo-nigrum, obverse conicum, tetragonum, angulis aristisque retrorsum scabro hamosis, fig. 7.	SEED of a dark olive colour, inversely conical, four cornered, the corners and beards beset with little hooks bending backward, fig. 7.
RECEPTACULUM paleaceum Paleis structuræ petalorum, lanceolatis, longitudine floscularum, fig. 5.	RECEPTACLE chaffy, or beset with numerous lanceolate leaves, having the structure of the petals, and being as long as the florets, fig. 5.

The genus *Bidens* of LINNÆUS is chiefly characterized by the structure of its seeds, which according to its name should be furnished with two teeth or awns; to neither of our English species does this name however well accord, as the one has generally three and the other four; the awns are furnished with small sharp hooks, (a curious object for the microscope) by means of which they often stick to ones clothes, and Mr. LIGHTFOOT mentions that they have been known sometimes to destroy the *Cyprinus auratus*, or Gold Fish, by adherring to their gills and jaws.

We have two species of *Bidens* common in this country, viz. the *tripartita* and *cernua*; the *tripartita* is common on the edge of almost every pond, the *cernua* delights rather to grow in the water itself; in the ditches about St. George's-Fields, in the pond adjoining Hornsey-Wood, and in similar situations about London it is very frequently met with; it flowers in the month of September, a month later than the *tripartita*.

Like all other plants it is subject to vary, being sometimes found without its exterior petals; and sometimes, in very dry seasons, when the sun has exhaled the water from the pond it has grown in, it has been found so dwarfish as not to exceed two or three inches in height; a plant of this kind is figured on the plate, fig. 8. DILLENIUS finding it in this state, described and figured it in his edition of RAY's *Synopsis*, as a distinct species; and LINNÆUS, probably relying on his authority, adopted it as such in his *Species plantarum*; but HALLER, who had seen the plant, very justly considers it as only a variety; and Mr. LIGHTFOOT concurs with him in opinion; Mr. HUDSON with his usual inaccuracy in the second edition of his *Flora anglica* gives it as a variety of the *tripartita*.

The flowers of this species have a strong and not a very disagreeable smell, hence they promise to possess some medicinal powers; it is said by LINNÆUS to dye yellow, but not so powerfully as the *tripartita*.



Bidens cornuta

INULA DYSENTERICA. COMMON FLEABANE.

INULA Linn. Gen. Pl. SYNGENESIA POLYG. SUPERFL.

Recept. nudum. Pappus simplex. Antheræ basi in duas setas definentes.

Raii Syn. Gen. 7. HERBÆ FLORE COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES,
FLORE DISCOIDE.

INULA *dysenterica* foliis amplexicaulibus cordato-oblongis, caule villoso paniculato, squamis calycinis
setaceis. Linn. Syst. Vegetab. p. 637. Linn. Spec. Pl. p. 1237. Fl. Suecic. n. 557.

ASTER foliis amplexicaulibus, undulatis, subtus tomentosis. Haller Hist. n. 79.

ASTER *Dysentericus*. Scopoli Fl. Carn. n. 1079.

CONYZA media asteris flore luteo vel tertia dioscoridis. Bauh. Pin. 265.

CONYZA media Matthioli, flore magno luteo, humidis locis proveniens. J. B. II. 1050.

CONYZA media Ger. emac. 482. HERBA DYSENTERICA. Cat. Altdorf. Raii Syn. p. 174. Middle
Fleabane.

Hudson. Fl. Angl. p. 368.

Oeder. Fl. Dan. t. 410.

RADIX perennis, repens, albida, crassitie pennæ an-
serinæ, majusculis fibris donata.

CAULIS pedalis ad bipedalem, erectus, ramosissimus,
teres, firmus, solidus, lanuginosus.

FOLIA alterna, conferta, patentia, amplexicaulia, ob-
longa, obscure ferrata, inferne tomentosa,
superne subhirsuta, obscure viridia.

RAMI plurimi, cauli similes, erecti, senioribus altius
proiecti.

FLORES flavi, procul conspicui, numerosi, subco-
rumbosi.

CALYX: communis, imbricatus, foliolis laxis, sub-
linearibus, hirsutis.

COROLLA composita, radiata, *Corollulae* hermaphro-
ditæ, æquales, numerofissimæ in disco. Fe-
mineæ ligulatæ, numerosæ, confertæ in radio.
Propria. Hermaphroditis infundibuliformis,
limbo quinquefido, erectiusculo, fig. 7. Femi-
nea ligulata, sublinearis, tridentata, fig. 1.

STAMINA Hermaphroditis: FILAMENTA quinque,
filiformia, brevia. ANTHERA cylindrica, com-
posita ex minoribus quinque linearibus, coali-
tis: singulis inferne desinentibus in setas duas
rectas longitudine filamentorum.

PISTILLUM Hermaphroditis: GERMEN oblongum,
hispidulum; STYLUS filiformis, longitudine
staminum; STIGMA, bifidum, reflexum, fig. 8.
Femineis: GERMEN ut in Hermaphrodito;
fig. 3. STYLUS longitudine tubi, STIGMA
bifidum, fig. 2.

PAPPUS pilosus, fig. 4, 5, 6.

ROOT perennial, creeping, whitish, the thickness of
a goose quill, furnished with largish fibres.

STALK from one to two feet high, upright, very
much branched, round, firm, solid, with a
woolly surface.

LEAVES alternate, set thickly together, spreading,
embracing the stalk, oblong, obscurely serrated,
underneath woolly, above somewhat hirsute, of a dull green colour.

BRANCHES numerous, like the stalk, upright, the
latest growing to the greatest height.

FLOWERS yellow, conspicuous at a distance, num-
erous, and forming a kind of corymbus.

CALYX: common to many florets, the leaves placed
one over another, somewhat linear and hirsute.

COROLLA compound and radiate, hermaphrodite
Florets equal and exceedingly numerous in the
centre. Female ligulate, numerous, growing
close together, in the circumference. Each
Hermaphrodite floret funnel-shaped, the limb
divided into five segments, which are nearly
upright, fig. 7. Female ligulate, somewhat li-
near, terminating in three teeth, fig. 1.

STAMINA in the Hermaphrodite flower; five FILA-
MENTS thread-shaped and short. ANTHERÆ
forming a cylindrical tube, composed of five
smaller linear ones united, each terminating
below in two straight setæ or threads the
length of the filaments.

PISTILLUM of the Hermaphrodite florets: GERMEN
oblong and somewhat hispid; STYLE thread-
shaped, the length of the stamens; STIGMA
bifid and turning back, fig. 8. of the female
Florets; GERMEN as in the Hermaphrodite
ones, fig. 3. STYLE the length of the tube;
STIGMA bifid.

DOWN hairy, fig. 4, 5, 6.

At the close of the year this plant contributes not a little to enliven and beautify the sides of our moist ditches;
to the Farmer it however affords no very pleasing spectacle when it over-runs, as it frequently does, large tracts of
land and gives it a barren uncultivated appearance.

LINNAEUS in his *Flora Suecica* mentions his having been informed by General Keit that the Russians in their
expedition against the Persians were cured of the Bloody-Flux by means of this plant, whence it has probably
obtained its name of *dysenterica*; had it possessed any efficacy in this disease superior to the medicines in general
use it would most probably have been retained in the present practice. RAY has observed that the leaves when
bruised smelt like Soap; RUTTY informs us that the juice is saltish and warms the mouth a little, that the
decoction is somewhat acrid in the throat, at the same time astringent and turning green with vitriol of Iron,
that the infusion is somewhat astringent, very bitter in the throat, and turning black with vitriol of Iron.

Cattle in general dislike it.



Cylindrica. —

INULA PULICARIA. SMALL FLEABANE.

INULA Linn. Gen. Plant. SYNGENESIA POLYGAMIA SUPERFLUA, Recept. nudum. Pappus simplex.

Antheræ basi in setas duas desinentes.

Raii Syn. Gen. 7. HERBÆ FLORE COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES,
FLORE DISCOIDE.

INULA Pulicaria foliis amplexicaulibus undulatis, caule prostrato, floribus subglobosis. Linn. Sp.
Pl. p. 1238.

ASTER foliis amplexicaulibus, undulatis, hirsutis, radiis brevissimis. Haller Hist. n. 80.

ASTER Pulicarius. Scopoli Fl. Carn. n. 1080.

CONYZA minor flore globoſo. Bauhin Pin. 266.

CONYZA minima. Gerard emac. 482. Raii Syn. p. 174. small Fleabane.

Hudson Fl. Angl. p. 369.

Oeder Fl. Dan. icon. 613.

RADIX annua, fibrosa, albida, articulata, plerumque curvata.	ROOT annual, fibrous, whitish, jointed, generally crooked.
CAULIS spithameus, raro ultra pedalem, nobiscum plerumque erectus, ramosissimus, teres, purpurascens, pubescens, subflexuosus; Rami alterni, cauli similes.	STALK from seven inches to a foot in height, seldom more, with us generally upright, very much branched, round, purplish, downy, somewhat crooked; Branches alternate, and like the stalk.
FOLIA alterna, oblongo-lanceolata, amplexicaulia, hirsutula, undulata.	LEAVES alternate, oblong, and lanceolate, embracing the stalk, slightly hairy, and waved at the edges.
FLORES parvi, numerosi, hæmisphærici, lutei, summitatibus ramulorum insidentes, pedunculati; post nati supra primos eminentes.	FLOWERS small, numerous, hemispherical and yellow, fitting on the tops of the branches and having foot stalks, the last blown standing considerably above the others.
CALYX communis imbricatus, squamæ numerosæ, inæquales, sublineares, erectæ, tomentosæ.	CALYX common to many florets, scales lying one over another, numerous, almost linear, upright, equal, and woolly.
COROLLA composita: Corollæ Hermaphroditæ æquales, numerosissimæ in disco, limbo quinqüefido, erecto, extus minutissime glauduloso, fig. 5, Femineæ ligulatæ, numerosæ, confertæ in radio; carinâ ad lentem scabriuscûlâ, limbo brevissimo, plerumque tridentato, fig. 1.	COROLLA compound, Hermaphrodite Florets equal, exceedingly numerous in the centre, the limb divided into five upright segments, and externally very minutely glandular, fig. 5, Female Florets in the circumference flat at the extremity, numerous, close together, the keel or midrib underneath a little rough, the limb very short, usually terminating in three teeth, fig. 1.
STAMINA: FILAMENTA quinque, capillaria; ANTHERÆ flavæ, longitudine corollæ, singulis setis duabus tenuissimis ad basin instructis, fig. 9, 10, 11.	STAMINA: five FILAMENTS, very fine; ANTHERÆ yellow, the length of the corolla, each furnished at bottom with two slender setæ or bristles, fig. 9, 10, 11.
PISTILLUM: GERMEN Hermaphroditis et Feminæ oblongum, teres, album, pilis rigidulis subappressis hirsutum, fig. 2, 4, STYLUS corollâ longior; STIGMA bifidum, laciniis reflexis, fig. 3, 6.	PISTILLUM: GERMEN both in the Hermaphrodite and Female Florets oblong, round, white, hirsute with stiffish hairs which are somewhat pressed to it; fig. 2, 4, STYLE longer than the corolla; STIGMA bifid, the segments turning back, fig. 3, 6.
SEMEN oblongum, nigricans, hispidulum, teres, papo simplici, rigidulo, fragili, longitudine feminis coronatum, fig. 8.	SEED oblong, blackish, round, and a little hispid, crowned with a simple, stiffish, brittle down, the length of the seed, fig. 8.
RECEPTACULUM nudum, punctis prominulis sca- brum, fig. 7.	RECEPTACLE naked, roughish from little prominent points, fig. 7.

LINNÆUS in his *Genera Plantarum* informs us that the *Inula* is principally characterized by having two small *Setæ* or *Bristles* proceeding from the base of each *Anthera*, and that it is by this circumstance in an especial manner distinguished from the Genus *Aster*, yet notwithstanding this, both *Haller* and *Scopoli* have thought proper to join it with that Genus; although a peculiar character, it might perhaps be considered by them as too minute to found a Genus on, in this species it requires a good eye and some small dexterity to discover them, yet they are sufficiently visible; independent of them, however, there is on the face of the two genera such an evident dissimilarity that a student would never expect to find them arranged together.

This species is not so common as the *dysenterica*, nor is it, like that, a perennial.—It generally grows in places overflowed in the winter, on the borders of ponds, particularly in a stiffish soil, and flowers in September.



Ptilaria pulvinaria

Sennaritrop.

VIOLA PALUSTRIS. BOG VIOLET.

VIOLA. Linn. Gen. Pl. SYNGENESIA MONOGAMIA.

Cal. 5-phyllo. Cor. 5-petala, irregularis, postice cornuta. Caps. supera 3-valvis, 1-locularis.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

VIOLA acaulis, foliis reniformibus. Linn. Syst. Veg. p. 668. Sp. Pl. p. 1324. Fl. Suec. n. 786. Haller Hist. n. 560.

VIOLA palustris rotundifolia glabra. Moris. Hist. 2. p. 475. f. 5. t. 35. f. 5. Plot. Ox. 144. t. 9. f. 2. Raii Syn. p. 364.

Hudson Fl. Angl. ed. 2. p. 379.

Lightfoot Fl. Scot. p. 506.

Œder Fl. Dan. t. 83.

RADIX perennis, repens, albida, dentata, hinc inde gemmis albis instructa, plurimis fibrillis ramosis capillata.

STIPULÆ radicales plurimæ, ovato-acutæ, ferrulatæ.

PETIOLÆ glabri, semicylindracei, interne concavi, ad lentem vici punctis minutissimis purpureis notati.

FOLIA subreniformia, tenera, nitida, crenata, venosa, subtus haud infreenter purpurascens.

PEDUNCULI radicales, uniflori, petiolis duplo longiores, subtetragoni.

BRACTEÆ duo, lanceolatae, oppositæ, ad basin ferrulatæ, infra medium pedunculi positæ.

FLORES parvi, pallide purpurei.

CALYX: PERANTHUM parvum, petalis duobus superioribus fere occultum, pentaphyllum, foliolis oblongis, obtusis, superioribus apice recurvis, fig. 1.

COROLLA: PETALA quinque, pallide purpurea, duabus superioribus deorsum flexis, longitudine fere calcaris nectarii, petala lateralia subtortuosa, stria unica simplici notata, basi barbata, fig. 2. infima venis purpureis ramosis pulchre picta, in calcar breve obtusum postice excurrente, fig. 3.

STAMINA: FILAMENTA quinque brevissima; ANTHERÆ bilocularis, in tubum vix coalescentes, membrana aurantiaca terminatae, fig. 4. au&t.

PISTILLUM: GERMEN subovatum; STYLUS basi curvatus, superne incrassatus, antheris longior; STIGMA nudo oculo bifidum appetet, fig. 5; armato sicut ad fig. 6.

PERICARPIUM: CAPSULA oblonga, trigona, trivalvis.

SEMINA plurima, subrotunda,

ROOT perennial, creeping, whitish, toothed, here and there furnished with white buds, and abundantly supplied with branched fibres.

STIPULÆ next the root numerous, ovate, pointed, and slightly sawed.

LEAF-STALKS smooth, semicylindrical, internally hollow, viewed with a glass appearing to be finely dotted with purple.

LEAVES somewhat kidney-shaped, tender, shining, notched, veiny, on the under side frequently purplish.

FLOWER-STALKS springing from the root, twice the length of the leaf-stalks, somewhat quadrangular.

FLORAL-LEAVES two, lanceolate, opposite, finely sawed at the base, and placed below the middle of the flower-stalk.

FLOWERS small, of a pale purple colour.

CALYX: a PERANTHUM, small and almost hid by the two uppermost petals, composed of five leaves, which are oblong, obtuse, the uppermost turned back at top, fig. 1.

COROLLA: five PETALS, of a pale purple colour, the two uppermost bent back, almost the length of the spur of the nectary, the side petals somewhat twisted, marked with one simple streak, and bearded at the bottom, the lowermost beautifully painted with branched veins of a purple red colour, running out backward into a short blunt spur, fig. 2, 3.

STAMINA: five FILAMENTS very short, ANTHERÆ bilocular, scarcely united in a tube, terminated by an orange coloured membrane, fig. 4. magnified.

PISTILLUM: GERMEN somewhat ovate; STYLE crooked at bottom, thickened at top, longer than the Antheræ; STIGMA to the naked eye bifid, fig. 5; when magnified appearing as at fig. 6.

SEED-VESSEL: an oblong, three-corner'd CAPSULE of three valves.

SEEDS numerous and roundish.

It is in Bogs only that we find the *Viola palustris*, the least showy of all our English Violets, and in such situations it generally abounds; on the boggy part of Shirley-Common, near Croydon, it may be found in flower in April and May.

It is distinguished from the other species by the peculiarity of its place of growth, the greater roundness of its leaves, the paleness of its flowers, and the extraordinary form of its stigma, vid. pl. fig. 6. In its œconomy it resembles the *Viola odorata*, *hirta*, &c. producing ripe seeds without perfect blossoms, and that in a greater quantity and for a longer continuance than any of the others.

A Violet with red striped blossoms is mentioned by PARKINSON, under the name of *Viola rubra striata Eboracensis*, which is considered by Mr. RAY and later writers, as only a variety of the present plant.



Viola

palustris.

ORCHIS MORIO. MEADOW ORCHIS.

ORCHIS Linn. Gen. Pl. GYNANDRIA DIANDRIA. *Nectarium corniforme pone florem.*

Raii Syn. Gen. 26. HERBÆ RADICE BULBOSA PRÆDITÆ.

ORCHIS Morio bulbis indivisis, nectarii labio quadrifido crenulato: cornu obtuso adscendente, petalis obtusis conniventibus. Linn. Syst. Vegetab. p. 674. Sp. Pl. p. 1333. Fl. Suec. n. 794.

ORCHIS radicibus subrotundis, petalis galeæ lineatis, labello trifido crenato, medio segmento emarginato. Haller Hist. n. 1281. t. 33.

ORCHIS Morio. Scopoli Fl. Carniol. n. 1110.

ORCHIS morio femina. Bauhin. Pin. 82. Parkins. 1347.

CYNOSORCHIS morio femina. Ger. emac. 208. Raii Syn. 377. The Female Fool-stones.

Hudson Fl. Angl. ed. 2. p. 383. Lightfoot Fl. Scot p. 514. Oeder. Fl. Dan. Tab. 253.

RADIX: Bulbi duo, subrotundi, magnitudine nucis avellanæ aut etiam moschatæ, superne ut in plerisque hujus generis fibris majusculis patentibus instructi, odore subhircino.

SCAPUS spithameus, ad pedalem et ultra, erectus, foliosus.

FOLIA amplexicaulia, lanceolata, lineata, superne nitida, inferne subargentea, ima reflexa, et quodammodo intorta.

FLORES pauciores, sex five octo, raro ultra duodecim, purpurei, laxe dispositi.

BRACTÆA longitudine fere germinis, purpurascens, incumbens.

COROLLA: PETALA quinque, omnibus in galeam convenientibus, quorum duo exteriora prefertim lineis quinque parallelis, viridibus notantur.

LABELLUM amplum, purpureum, medio albidum, punctatum, trilobum, lobis lateralibus deflexis, medio breviore emarginato, omnibus ferrulatis. Calcar longitudine fere germinis, subemarginatum, sursum tendens.

STAMINA: FILAMENTA duo; ANTHERÆ virides, clavatæ, bilamellatæ, fig. 2, 3, 5.

ROOT: two roundish Bulbs of the size of a hazel nut or even of a nutmeg, above as in most of the plants of this tribe furnished with largish spreading fibres, smelling strong and rank.

STALK from six or seven inches to a foot or more in height, upright and leafy.

LEAVES embracing the stalk, lanceolate, marked with lines, shining on the upper side, underneath silvery, the bottom ones for the most part turning back and variously contorted.

FLOWERS few in number, from six to eight, seldom more than twelve, of a purple colour, fitting loosely on the stalk.

BRACTÆA or Floral leaf, almost the length of the germen, purplish and incumbent.

COROLLA: five PETALS, all of which close together and form the helmet, of these the two outermost are strikingly marked with green parallel lines.

LIP large, purple, whitish in the middle and dotted, having three lobes, of which the two side ones turn downward, the middle one shortest with a notch in it, all of them finely sawed. Spur nearly the length of the germen, slightly notched at top and tending upward.

STAMINA: two FILAMENTS; ANTHERÆ green, club-shaped, splitting into two lamellæ, fig. 2, 3, 5.

Most of the plants of the Orchis tribe as already has been observed have bulbous roots which are yearly renewed, they do not however increase in that abundant manner which many other bulbous-rooted plants are known to do; as yet I have not heard of any one that has raised them from seed, nor can I boast a fact of that kind myself, yet frequent observation almost confirms me in the opinion that they must be propagated from seed; if this be not admitted, how shall we account for so many young plants being found together as are frequently observed? I have myself seen from twenty to thirty young plants of the Bee Orchis growing within a foot of each other, and it is well known they seldom or never increase by the root; accurate and repeated observation in natural history is capable of producing much information, and will it is hoped ere long satisfactorily elucidate this doubtful subject.

Some writers on the Materia Medica have pronounced this to be the true plant which produces the oriental Salep, while others suppose it to be some other species, there is one circumstance which makes it impossible that this species should produce all the Salep, as many of the roots in that drug appear palmated like those of the *Orchis Maculata*, whereas had they been the produce of the *Orchis Morio* they would all have appeared round, it would therefore appear most probable that the Salep is formed from a number of the different species mixed together; there seems to be no propriety in confining it to this species alone, the *mascula*, the *maculata*, the *bifolia*, and some others have as large or larger roots than this, and their quality appears to be the same.

The *Orchis Morio* grows in meadows that are moderately dry, such as the Cowslip is usually found in, and sometimes they are so numerous as to empurple the spot they grow on.

It assumes all the changes of colour from a deep purple to a white, indeed there is no Orchis more variable in this respect, but in all its varieties it retains more or less strongly the green lines on its side petals which obviously distinguish it from all our other Orchis's.

It flowers in May and June.

174



Orchis Morio

Swanson Sculpsit



Ophrys ovata

Nation Sculp.

O P H R Y S O V A T A . T W A Y B L A D E .

OPHRYS *Linn. Gen. Pl. GYNANDRIA DIANDRIA.*

Nectarium subcarinatum.

Raii Syn. Gen. 29. HERBÆ RADICE BULBOSA PRÆDITÆ.

OPHRYS *ovata* bulbo fibroso, caule bifolio, foliis ovatis, nectarii labio bifido. *Linn. Syst. Vegetab.* p. 667. *Sp. Pl. 1342. Fl. Suec. n. 808.*

EPIPACTIS foliis binis ovatis, labello bifido. *Haller Hist. 1291. t. 37.*

OPHRYS *ovata*, *Bauhin Pin. 87. Ger. emac. 402.*

BIFOLIUM *sylvestre vulgare* *Parkins. 504. Raii Syn. 385. Common Twayblade.*

Fl. Dan. t. 137. Hudson Fl. Engl. ed. 2. p. 388. Lightfoot Fl. Scot. p. 523.

RADIX	perennis, fibrosa, fibris plurimis, teretibus, cylindricis, contortis.	ROOT	perennial, fibrous, fibres numerous, round, cylindrical, matted together.
SCAPUS	pedalis et ultra, solidus, teres, villosus, subviscidis, foliolis paucis pérrevibus, alternis, acuminatis, vaginantibus instructus.	STALK	a foot or more in height, solid, round, villosus, slightly viscid, and furnished with very short, alternate, pointed, sheathing leaves.
FOLIA	bina, prope terram, inferiore basi sua superioris basin ambiente, ovata, mucronata, quinqüenervia.	LEAVES	growing in pairs, near the ground, the lower one by its base surrounding the base of the upper one, ovate, pointed, with five ribs.
FLORES	herbacei, spicati, laxe et distincte insidentes.	FLOWERS	of a greenish colour, growing in a spike, fitting loosely and distinctly.
SPICA	prælonga, angusta.	SPIKE	very long and narrow.
Fig. 1. ad 12.	exhibit partes fructificationis sicut per lentem apparent.	Fig. 1. to 12.	exhibit the parts of the fructification as they appear through a magnifier.
Fig. 1. ad 6.	Flos antice visus.	Fig. 1. to 6.	a Flower seen in front.
Fig. 1, 4, 5.	PETALA exteriora latiora; 2, 3. interiora angustiora.	Fig. 1, 4, 5.	the outer broadest PETALS; 2, 3. the inner and more narrow ones.
Fig. 6.	<i>Labellum NECTARII</i> bifidum, in situ naturali saepius inflexum.	Fig. 6.	the Lip of the NECTARY, which in its natural situation is generally bent inward.
Fig. 7.	<i>Squama superior</i> ; fig. 10. <i>Squama inferior</i> , (fustentaculum Halleri) inter quas theca staminum quasi in forcipe continetur.	Fig. 7.	the superior Squama; fig. 10. the inferior Squama (the fustentaculum of Haller) between which the case containing the stamina is held as in a pair of forceps.
Fig. 12.	Theca staminum, cum staminibus inclusis.	Fig. 12.	the Case of the stamina, with the stamina enclosed.
Fig. 8.	Theca staminum, demissis staminibus, fig. 9.	Fig. 8.	the Case of the stamina, the stamina having fallen out, fig. 9.
Fig. 15.	STAMINA cum ANTERIS bilamellosis, flavis, seorsim exhibitis.	Fig. 15.	the STAMINA with the ANTERÆ composed of two lamellæ of a yellow colour shewn by themselves.
Fig. 11.	Stigma.	Fig. 11.	the Stigma.
Fig. 15.	PERICARPIUM nat. magnitud.	Fig. 15.	SEED-VESSEL of its natural size.

To render the characters of this genus, which are very difficult of investigation, easy to the Botanic Student, they are represented in a magnified state, and particularly referred to.

It will be seen on comparing, how very different they are from those of the Orchis.

This species of Ophrys is the most common of the whole genus, and may be found in most of the Woods about London, particularly such as have a moist soil, as about Shooter's-Hill, and sometimes it is found in Meadows and on Heaths.

A variety with three leaves is now and then met with.

It flowers in May and June.

Latifolia.
TYPHA MAJOR. GREATER CAT'S-TAIL.

TYPHA. Linn. Gen. Pl. MONOECIA TRIANDRIA.

MASC. Amentum cylindricum. Cal. obsoletus, 3-phyllus. Cor. o. FEM.
Amentum cylindricum, infra masculos. Cal. capillo villoso. Cor. o. Sem. 1.
infidens pappo capillari.

Raii Syn. HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ FLORE IMPERFECTO SEU STAMINEO.

TYPHA *latifolia* foliis subensiformibus, spica mascula femineaque approximatis. Linn. Synt. Vegetab.
p. 702. Sp. Pl. 1377.

TYPHA clava unica. Haller Hist. n. 1305.

TYPHA latifolia. Scopoli. Fl. Carniol. p. 214.

TYPHA palustris major. Bauh. p. 20.

TYPHA palustris maxima. Parkins. 1204.

TYPHA Ger. emac. 46. Raii Syn. p. 436. Great Cat's-Tail or Reed-Mace. Hudson Fl. Angl. ed. 2.
p. 400. Lightfoot Fl. Scot. 538.

RADIX perennis, repens, crassitie pollicis, articulata, spongiosa, radiculis fibrillosis, albidis instructa, surculi albidi, teneri, in mucronem rigidam abeuntes, more tritici canini.

CULMUS tripedalis ad sexpedalem, simplex, erectus, foliosus, teres, laevis.

FOLIA alterna, erecta, parum tortuosa, subensiformia, carnoса, superne plana, glauca, unciam fere lata, bi aut tripedalia, longissimâ vaginâ cauem involventia.

SPATHÆ duæ, deciduæ, una ad spicæ masculæ basin, altera ad ejus medium.

FLORES masculi numerosissimi in Amento eretto, culmum terminante.

CALYX nullus.

COROLLA nulla.

STAMINA: FILAMENTUM antequam antheræ pollinem dimittunt, brevissimum, sustinens Antheram unum ad quatuor, demisso polline pendulum, et antheris longius; ANTHERA oblongæ, flavæ, quadrisulcatae, glandulâ viscente terminatae, fig. 1, 2, 3, 4.

FLORES feminæ numerosissimi, in amento, masculino subiecto et contiguo.

PISTILLUM: GERMEN ovatum, minimum, pedunculo brevi infidens; STYLUS superne incrassatus; STIGMA nigrum.

SEmen minimum, pedunculatum, aristatum, pedunculo papposo, fig. 5.

RECEPTACULUM amenti masculi pilosum,

ROOT perennial, creeping, the thickness of one's thumb, jointed, spongy, furnished with small fibrous roots of a whitish colour, the young shoots white, tender, terminating in a sharp hard point, like that of the common couch-grass.

STALK from three to six feet high, simple, upright, leafy, round, and smooth.

LEAVES alternate, upright, somewhat twisted, sword shaped and fleshy, at top flat, and of a blueish colour, about an inch in breadth and two or three feet in length, enclosing the stalk in a very long sheath.

SHEATHS two, deciduous, one placed at the bottom of the male spike, the other at the middle.

FLOWERS of the male very numerous, in an upright Catkin, terminating the stalk.

CALYX wanting.

COROLLA wanting.

STAMINA: the FILAMENT before the shedding of the pollen is very short, sustaining from one to four Antheræ, the pollen being shed, it hangs down and becomes longer than the Antheræ; ANTHERA oblong, yellow, with four grooves, terminated by a greenish gland, fig. 1, 2, 3, 4.

FLOWERS of the female extremely numerous, in a catkin, placed under and contiguous to the male catkin.

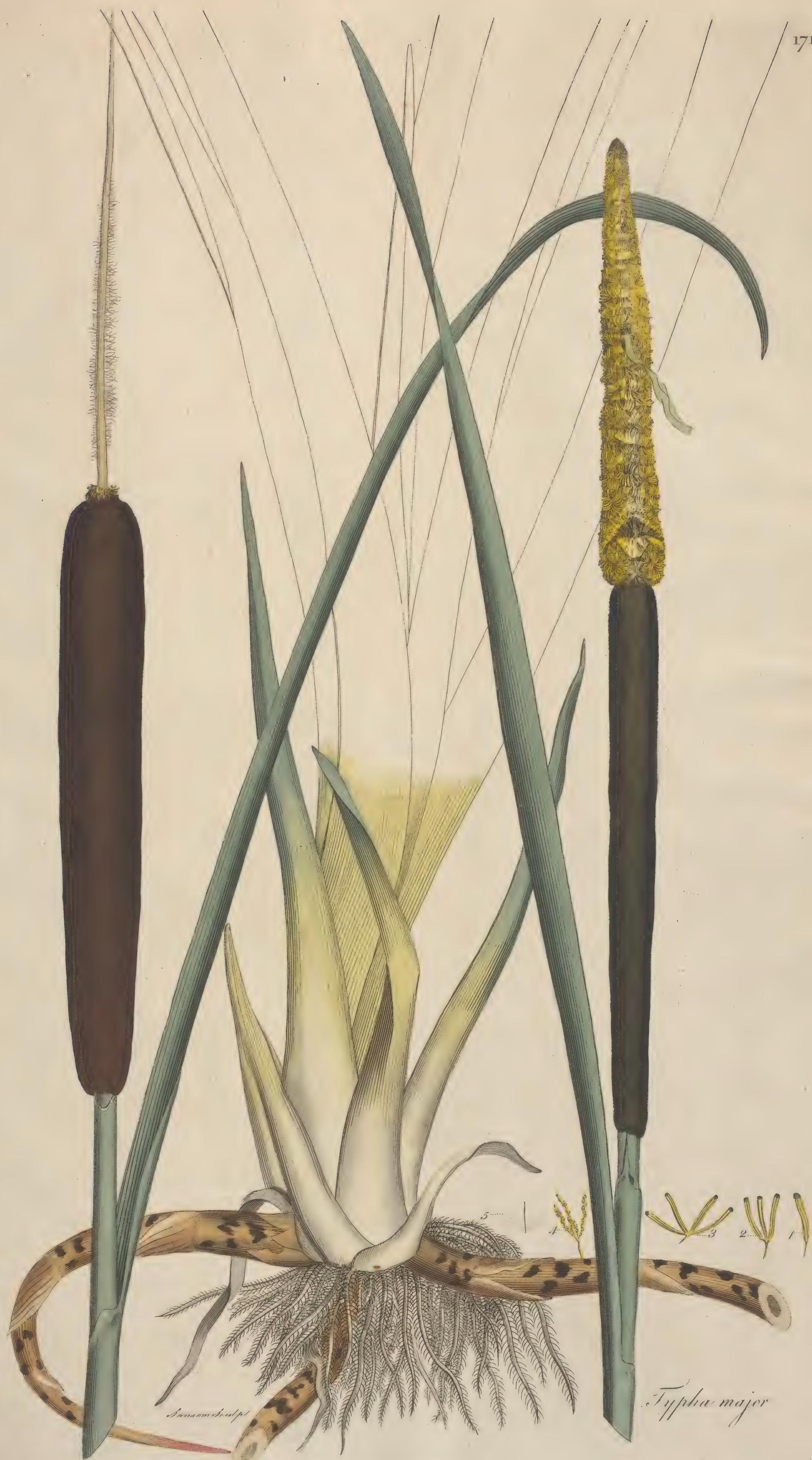
PISTILLUM: GERMEN ovate, very minute, sitting on a short foot-stalk; STYLE thickened above; STIGMA black.

SEED very small, sitting on a foot-stalk, and terminated by an arista, the foot-stalk downy, fig. 5.

RECEPTACLE of the male-catkin hairy.

The appearance of the *Typha major*, when its spike is nearly ripe, is sufficiently striking to engage the attention even of the most incurious; it is not therefore to be wondered at, that Gentlemen, who are fond of Plants, should introduce it on the edges of their ponds, or that Painters should make it a conspicuous Plant in their representations of water; the Gentleman should however be apprized, that it has a creeping root, which increases very much, soon chokes up a small piece of water, and overpowers other aquatics; thus difficult to keep within proper bounds, the most eligible mode of cultivating it is found to be in some border of the garden, where, if the soil be moist, it will flourish and produce spikes more abundantly than in the water.

The





The quantity of impregnating dust contained in the male spike is exceedingly great, though proportioned indeed to the astonishing number of seeds in the female spike below; if these seeds are endowed with a vegetative power (and that they are not I cannot assert from experiment) Nature will appear to have been unusually solicitous in the preservation of this Plant; but it often happens, as elsewhere has been observed, that many of those plants which increase very much by their roots seldom produce perfect seed, as in the Moneywort, Butterbur, Water Violet, &c. here indeed the seed appears to come to its greatest perfection; they are, it is true, exceedingly minute, but this is no argument against their growth, as the seeds of the Ferns, which, are infinitely smaller, are known to vegetate, and so are those of the Mosses, which are yet smaller; for, whatever some Botanists may assert to the contrary, the fine powder contained in their capsules, is as much seed as that contained in the capsules of the Ferns.

To ascertain the fact relative to the *Typha*, and to learn whether it increases in any considerable degree from the seed, I propose sticking round some pond where it is not known to grow, several spikes with the seeds just beginning to blow off, and shall relate the effects of this experiment under the *Sparganium*, or Burreed.

The parts of fructification in this plant being very minute, are with difficulty investigated. LINNÆUS, who examined and described them without the assistance of a magnifier, is therefore excusable, if he has not been so minutely accurate in his description of them, as he is in most others.

The Calyx which he describes, does not appear to be the Calyx, but rather some of the hairs proceeding from the receptacle, and which indeed appear more evidently to be so, from the hairy appearance of the receptacle when the stamens are dropped off; on one Filament are supported one, two, three, or four Antheræ, and that indiscriminately, so that there does not appear to be any great propriety in placing it in the order Triandria, it would be much less puzzling, and perhaps more agreeable to the system, to place it in the order Polyandria, there being many stamens, and all of them united to one receptacle.

The uses to which this plant are applied are but few.

The Roots are said to be eaten as a salad. *Haller Hist. ex. auct. Gledit.*

The downy seeds serve for stuffing pillows. *Haller Hist.*

Coopers use the leaves to fasten the hoops round their casks. *Linn. ex. auct. Ruppii.*

According to HALLER, cattle eat the leaves which are suspected to be poisonous by SCHREBER.

It grows in ponds, ditches, and by the sides of rivers in many places about London, and flowers in July.

angustifolia.

TYPHA MINOR. SMALLER CAT'S-TAIL.

TYPHA. *Linn. Gen. Pl. MONOECIA TRIANDRIA.*

MASC: Amentum cylindricum. *Cal. obsoletus, 3-phyllus. Cor. o. FEM.*
Amentum cylindricum, infra masculos. Cal. capillo villoso. Cor. o. Sem. 1.
infidens pappo capillari.

Raii Syn. HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ FLORE IMPERFECTO SEU STAMINEO.

TYPHA *angustifolia* foliis semicylindricis, spica mascula femineaque remotis. *Linn. Synt. Vegetab.*
p. 702. Sp. Pl. 1377.

TYPHA clava mascula a feminina remota. *Haller Hist. 1306.*

TYPHA *angustifolia*. *Scopoli. Fl. Carniol. p. p. 214.*

TYPHA *palustris minor*. *Bauh. Pin. p. 20.*

TYPHA *minor* *Parkins. 1204. Raii Syn. 436.*

Hudson Fl. Engl. ed. 2. p. 400.

The Typha minor is a much scarcer plant about London than the major, from which it differs specifically in having much narrower leaves and slenderer spikes, the male spike being also distant from the female about an inch; in the structure of its parts and its general economy it resembles the other.

I have observed it growing near Battersea, where it is now destroyed; also on the middle of Woolwich Common, where the Botanist may probably find it a hundred years hence. It flowers at the same time as the major.

CAREX PENDULA. PENDULOUS CAREX.

CAREX Linn. Gen. Pl. MONOECIA TRIANDRIA.

MASC. Cal. 1-phylus. Cor. o. FEM. Amentum imbricatum. Cal. 1-phylus. Cor. o. Nectarium inflatum, 3-dentatum. Germen triquetrum, intra nectarium.

Raii Syn. Gen. 28. HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ IMPERFECTO SEU STAMINEO.

CAREX spicis femininis pendulis longissimis, capsulis mucronatis ovatis. Haller Hist. 1396.

CAREX pendula, spicis subseffilibus pendulis, mascula erecta, femineis cylindricis longissimis, capsulis subrotundis acuminatis. Hudson Fl. Angl. ed. 2. p. 411.

GRAMEN spica pendula longiore et angustiore B. Pin. 6. Pr. 13. J. B. 11. 497.

GRAMEN cyperoides spica pendula longiore. Parkins. 1267. Raii Syn. p. 420. Many-spiked Cyperus-grafts with long pendulous heads.

RADIX perennis, non vero repens.

CULMUS tripedalis, ad orgyalem in solo lætiori etiam accedit; triqueter, levis, superne striatus, foliosus.

FOLIA semunciam lata, viridia absque ullâ glaucidine, oris nervisque subasperis, minute ferrulatis, minus vero quam in multis aliis hujuscet generis.

SPICÆ: omnes pendulæ, suprema e floribus masculis omnino composita, crassa, basi tenuior, secunda et tertia femineæ, apice incrassatæ, ubi androgynæ, inferiores femineæ, lineares, longissimæ.

Flores masculi.

SQUAMÆ ovato-lanceolatae, acuminatae, e fusco purpurascentes, concavæ, trinerves, fig. 1.

STAMINA: FILAMENTA tria, capillaria, demissæ polline longitudine squamarum; ANTHÈRAE lineares, quadrifalcatae, flavæ, fig. 2, 3, 4.

Flores feminei.

SQUAMÆ ut in masculo, fig. 5.

NECTARIUM inflatum, ovato-oblongum, glabrum, collo contracto, fig. 6.

PISTILLUM: GERMEN triquetrum, intra Nectarium; STYLUS brevissimus; STIGMATA tria, filiformia, pubescens, fig. 7, 8.

SEmen unicum, ovato-acutum, triquetrum.

ROOT perennial, but not creeping.

STALK three feet high, in a rich soil growing even to the height of six feet, three cornered, smooth, at top striated, leafy.

LEAVES half an inch broad, green without any glaucous appearance, somewhat rough from being finely sawed, but much less so than many others of this genus.

SPIKES: all of them pendulous, the uppermost composed entirely of male flowers, thick, but slender at its base, the second and third female thick at top, with a mixture of male and female flowers, the lower ones female, linear, and very long.

Flowers of the male.

SCALES narrow-oval, running out to a long point, of a brownish purple colour, hollow, with three ribs, fig. 1.

STAMINA: three FILAMENTS very fine, on the shedding of the pollen becoming as long as the scales; ANTHÈRAE linear with four grooves, and of a yellow colour, fig. 2, 3, 4.

Flowers of the female.

SCALES as in the male, fig. 5.

NECTARY inflated, of an oval oblong shape, smooth, the neck contracted, fig. 6.

PISTILLUM: GERMEN three cornered, within the Nectary; STYLE very short; STIGMATA three, thread-shaped, and downy, fig. 7, 8.

SEED single, oval pointed, and three cornered.

We have here given for the first, a figure and description of the *Carex pendula*, one of a numerous tribe of plants, distinguished not less by the singularity of their fructification, than the difficulty which attends an investigation of their several species; from this difficulty the present plant may however claim a total exemption, for in whatever situation it is found, its long, pendulous, female spikes at once distinguish it; these when young are very slender, as the seeds ripen they become much thicker and cylindrical.

This elegant species is found in great abundance in the moist hedges about Hampstead and Highgate, flowering in May, and ripening its seeds in June.

It is not applied so far as our knowledge at present extends to any particular purposes.



Carex pendula



Hydrocharis Morsus-ranae

W. J. Hooker Sculps.

HYDROCHARIS MORSUS RANÆ. FROG-BIT.

HYDROCHARIS Linn. Gen. Pl. DIOECIA ENNEANDRIA.

MASC. *Spatha* 2 phylla. *Cal.* 3 fidus. *Cor.* 3 petala. *Filam.* 3 interiora stylifera. FÆM. *Cal.* 3 fidus. *Cor.* 3 petala. *Styli* 6. *Caps.* 6 locularis, polysperma, infera.

HYDROCHARIS Linn. Syst. Vegetab. p. 746. Spec. Pl. 1466. Fl. Suecic. n. 914.

HYDROCHARIS Haller Hift. 4. 1068.

NYMPHÆA alba minima. Bauh. Pin. 193.

MORSUS RANÆ Parkinson 1252.

MORSUS RANÆ Gerard. emac. 818.

STRATIOTES folio asari, semine rotundo. Raii Syn. p. 290. The least white Water Lily, or Frog-Bit.

Hudson Fl. Angl. ed. 2. p. 436.

Lightfoot Fl. Scot. p. 622.

RADIX: Flagellis in longum extensis facile multiplicatur hæc planta, nutrimentum hauriens per radiculas albas, fibrillofas, in limum profunde descendentes.

FOLIA sex, five octo, natantia, rotundato-reniformia, carnosæ, glabra, integerrima, subpellucida, venis paucis circularibus, plurimis transversis notata, subtus rubella.

PETIOLI spithamæi, crassi, pellucidi, lineis plurimis decussati.

SPATHÆ in utraque sexu plurimæ, radicales, ovatæ, pellucidæ, in masculis etiam circa medium pedunculi enascuntur binæ, flosculos tenellos, inapertos quasi in vesicâ continentes.

PEDUNCULI longitudine petiolorum, erecti; masculi triflori aut quadriflori, feminei uniflori, crassiores.

Mas.

CALYX: PERIANTHIUM triphyllum, foliolis ovatis, concavis, flavescentibus, membranaceis, patentibus, fig. 1.

COROLLA: PETALA tria, alba, plana, rugosula, tenuerrima, basi flava.

STAMINA: FILAMENTA novem, in tres ordines disposita, quorum intermedius ordo stipitem subulatum e basi interiore, styli ad instar exserit, et in centro collocat. Duo reliqui ordines basi connectuntur, ut internum et externum cohæreat filamentum; ANTERÆ sublineares, biloculares, flavæ, fig. 2, 3, 4, 5, 6, 7.

PISTILLUM: GERMINIS rudimentum in centro, fig. 8.

Femina.

CALYX: PERIANTHIUM ut in mare, superum.

COROLLA ut in mare.

PISTILLUM: GERMEN subovatum, inferum: STYLI sex, longitudine calycis, patentes, compressi, bifido-canaliculati; STIGMATA bifida, acuminata, fig. 9. 11.

NECTARIUM: Glandulæ tres, flavæ, germen coronant, fig. 10.

PERICARPIUM: CAPSULA coriacea, subrotunda, sexlocularis.

SEMINA numerosa, minima, subrotunda.

ROOT: this plant easily multiplies itself by means of runners which shoot out to a great length, and is supported by long fibrous roots, which penetrate deep into the mud.

LEAVES six or eight, swimming, of a roundish kidney shape, fleshy, smooth, perfectly entire, somewhat transparent, marked with a few circular but numerous transverse lines, reddish underneath.

LEAF STALKS six or seven inches long, thick, transparent, having numerous cross bars.

SHEATHES in both sexes numerous, next the root, ovate and transparent; in the male plant also a pair grow out about the middle of the flower stalk which contain the tender unopened blossoms as in a bladder,

FLOWER-STALKS the length of the leaf stalks, upright; the male producing three or four flowers, the female one only, thicker in size.
Male.

CALYX: a PERIANTHIUM of three leaves, which are ovate, concave, yellowish, membranous, and spreading, fig. 1.

COROLLA: three, white, flat Petals, a little crumpled, very tender, and yellow at bottom.

STAMINA: nine FILAMENTS, disposed in three rows, of which each in the middlemost puts out from its base on the inside a style-like substance which is placed in the centre of the flower. The two other rows are connected at bottom, so that the internal and external filament adhere together; ANTERÆ yellow, nearly linear, with two cavities, fig. 2, 3, 4, 5, 6, 7.

PISTILLUM: the rudiment only of a GERMEN in the centre, fig. 8.

Female.

CALYX: a PERIANTHIUM as in the male, placed above the Germen.

COROLLA as in the male.

PISTILLUM: GERMEN somewhat ovate, beneath the calyx; STYLES six, the length of the calyx, spreading, flat, forked and channel'd; STIGMATA forked and pointed.

NECTARY: three yellow Glands crown the germen, fig. 10.

SEED-VESSEL: a roundish, leathery CAPSULE, with six cavities.

SEEDS numerous, very minute, and roundish.

Most of the deep ditches with a muddy Bottom, having a slow current of water, and which abound in the vicinity of the Thames, have their surface covered with this plant in Autumn, at which period its blossoms which are uncommonly delicate make their appearance.

The leaves and indeed the whole structure and œconomy of the Frog-Bit is exceedingly curious, and deserving the minute attention of the inquisitive Botanist.

Its particular uses we seem at present unacquainted with.

RAY mentions a variety of it with sweet, double flowers, growing in a ditch at the side of *Audrey Causey*, near a wooden bridge in the Isle of Ely.



HYPNUM PURUM. MEADOW HYPNUM.

HYPNUM. Linn. Gen. Pl. CRYPTOGAMIA MUSCI.

Anthera operculata. Calyptra lavis, Filamentum laterale ortum e perichaetio.

Raii Syn. Gen. 3. MUSCI.

HYPNUM *purum* furculis pinnato-sparsis subulatis, foliis ovatis obtusis conniventibus. Linn. Syst. Vegetab. p. 108. Sp. Pl. 1594. Fl. Suec. 1031.

HYPNUM ramis teretibus, foliis ovato lanceolatis, setis prælongis, capsulis inclinatis, aristatis.

HYPNUM *purum*. Scopoli Fl. Carn. n. 1326.

HYPNUM cupressiforme vulgare, foliis obtusis. Dillen musc. p. 309. fig. 45.

MUSCUS squamosus cupressiformis. Vaillant Bot. paris. p. 138. n. 15. Tab. 28. f. 3.

HYPNUM terrestris erectum, ramulis teretibus, foliis inter rotunda et acuta medio modo se habentibus. Raii Syn. 81.

Hudson Fl. Angl. ed. 2. p. 504.

Lightfoot Fl. Scot. p. 753.

CAULES teretiusculi, suberecti, simplices seu ramosi, squamosi, nitentes, apicibus plerumque crassioribus.

RAMULI pinnato-sparsi, teretiusculi, subulati, plerumque recurvi.

FOLIA ovata, obtusa, mucronata, convexo-concava, tenera, nitida, dense imbricata, adpressa, pallide virentia, fig. 1. auct.

PEDUNCULI nobiscum non raro occurunt mense Novembri, unciales et biunciales, erecti, inferne ruberrimi, superne flavescentes, parum flexuosi, nitidi.

PERICHÆTIUM oblongum, squamosum, squamæ erectæ, lanceolatæ, adpressæ, fig. 2.

CAPSULÆ adultæ subovatæ, parum nutantes; fig. 5. 8. *Calyptra membranacea, lavis, primo erecta, fig. 4. cito caduca, fig. 3. Operculum breve, conicum, fig. 6, 7; Cilia, externæ plurimæ, setaceæ, rigidulæ, rufescentes; internæ, membranæ connexæ, apice convergentes; Pollen seu Semen virescens, fig. 10.*

STALKS roundish, somewhat upright, simple or branched, scaly, shining, the tops generally thickened.

SMALL BRANCHES numerous, irregularly pinnated, tapering, generally bent back.

LEAVES ovate, obtuse, but terminated by a short point or awn, convex on one side and concave on the other, tender, shining, numerous, laying closely one over the other, of a pale green colour, fig. 1. magnif.

PEDUNCLES not unfrequent with us in the month of November, are from one to two inches in length, upright, below of a bright red colour, above yellowish, a little crooked and shining.

PERICHÆTIUM oblong, scaly, scales upright, lanceolate and pressed to the bulb, fig. 2.

CAPSULES when full grown are somewhat ovate, and a little nodding, fig. 5. 8. *Calyptra membranous, smooth, at first upright, fig. 4. soon falling off, fig. 3; Operculum short and conical, fig. 6, 7; the outer Cilia numerous, tapering, somewhat rigid, and of a reddish brown colour, the internal ones connected by a membrane and converging to a point; Pollen or seed of a greenish colour, fig. 10.*

The *Hypnum purum* has been considered as producing its fructifications but sparingly, yet if it be examined at the proper season of the year, viz. in the month of November, the period of its greatest perfection, it will not be found deficient in this respect; at that time its leaves are of a bright green colour, but as the plant advances they change to a yellower hue than most others.

DILLENIUS makes no mention of the Calyptre belonging to this moss, from whence it would appear that like most other Botanists he examined it at too late a period; in general those Capsules which have a short Operculum carry the Calyptre but a little while, as in the present plant, while those in which the Operculum is long, bear it often to the falling off of the Operculum itself, as in the *Bryum undulatum*.

This is one of the most general Mosses we have, growing in woods, in pastures, and by hedge sides universally, in the former it is most frequently found with its capsules; the Oak of Honour Wood, and the woods adjoining, produce it in this state at the time above mentioned in the greatest plenty; being a moss generally free from all impurities, it is made use of by the anglers in Lancashire, and probably in other counties, to scour their worms in. Dill. Hist. musc. p. 310.

BRYUM SUBULATUM. AWL-SHAPED BRYUM.

BRYUM. *Linn. Gen. Pl. CRYPTOGAMIA MUSCI.*

Anthera operculata. Calyptra laevis, Filamentum e tuberculo terminali ortum.

Raii Syn. Gen. 3. MUSCI.

BRYUM *subulatum* antheris erectis subulatis, furculis acaulibus. *Linn. Syst. Vegetab. p. 797. Sp. Pl. p. 1581. Fl. Suec. n. 991.*

BRYUM caule brevissimo, foliis lanceolatis, capsulis longissimis, operculo prælongo. *Haller Hist. 1827.*

BRYUM *subulatum*. *Scopoli Fl. Carn. n. 1304.*

BRYUM capsulis longis subulatis. *Dill. Musc. 350. t. 45. f. 10.*

BRYUM erectis longis et acutis falcatis capitulis, calyptra subfuscata, foliis serpylli pellucidis. *Raii Syn. 92. Vaill. Bot. Par. t. 25. f. 8.*

Hudson Fl. Angl. ed. 2. p. 476.

Lightfoot Fl. Scot. p. 719.

RADICES nigræ, fibrillosæ, parum ramosæ.

ROOTS black, fibrous, a little branched.

CAULES subsessiles, dense coacervati, simplices vel ramosi.

STALKS nearly sessile, growing close together, simple or branched.

FOLIA ovato-lanceolata, patentia, pellucida, pallide viridia, modice carinata, mucrone brevi terminata, ad lentem visa, fig. 1.

LEAVES ovato-lanceolate, spreading, transparent, of a pale green colour, moderately keeled, terminated by a short point, as magnified, fig. 1.

PEDUNCULI unciales et ultra, pallide lutescentes, sicci contorti, bulbillo prædicti oblongo, fig. 2.

PEDUNCLES an inch or more in height, of a pale yellow colour, twisted when dry, furnished with an oblong bulb, fig. 2.

CAPSULÆ prælongæ; cylindraceæ, subaurantiacæ, incurvæ, fig. 3, annotinæ rectiores e fusco-purpureæ, e quarum ore egreditur trunculus seu cornu, e ciliis in tubum contortis compositum, apice vero liberis, fig. 6, 7, 8, 9; Calyptra longitudine fere capsulæ, acumina-ta, fig. 4.

CAPSULES very long, cylindrical, somewhat orange coloured and crooked, fig. 3; those of the preceding year straighter, of a purplish brown colour, from the mouth of which proceeds a little trunk or horn composed of the ciliæ twisted into a tube, but loose at top, fig. 6, 7, 8, 9; Calyptra almost the length of the Capsule, having a long point, fig. 4.

OPERCULUM capsulâ duplo brevior, acuminatum, fig. 5.

OPERCULUM twice as short as the Capsule and pointed, fig. 5.

Few of the Mosses are subject to so little variety, or more easily discovered than the *Bryum subulatum*; before it puts forth its Capsules, we are struck with the broadness of its leaves and their star-like expansion; as it advances, the Capsules while covered by their Calypters are unusually long, pointed, and in general a little bent, whence it has acquired the English name of Awl-shaped; the Capsule in its last state after losing both its Calyptra and Operculum, is peculiarly distinguished by the protrusion of a substance from its mouth, of a whiter colour than the body of the Capsule; this substance when magnified is found to consist of a number of threads or filaments forming a thin spiral tube, yet loose and unconnected at top, see fig. 7, 8, 9; the tube is formed before the Operculum falls off, for its spiral line may be observed through the transparent Operculum when it is in a young state: DILLENIUS using a small magnifier, has not done justice to this very singular and curious character.

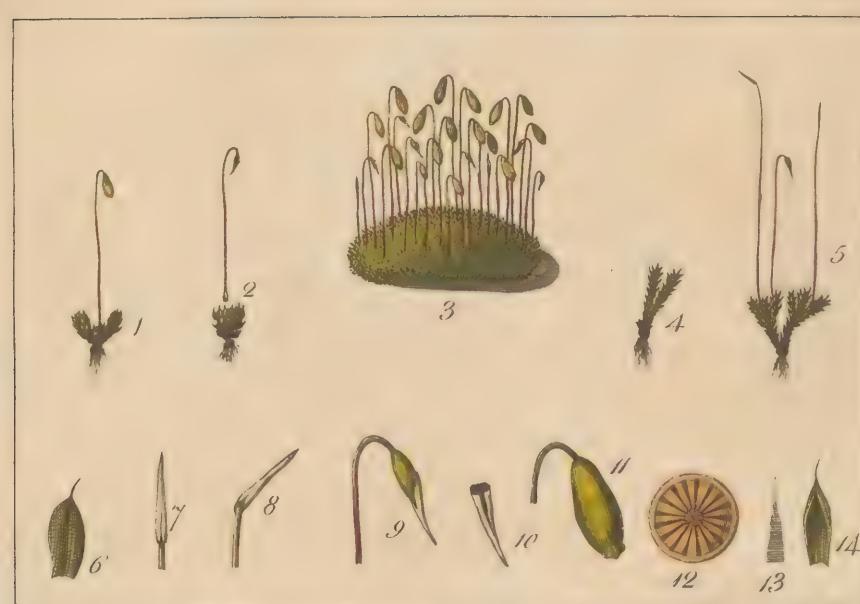
This Moss is not uncommon on banks surrounding woods, also in shady lanes; I have observed it in great plenty on a bank on the right-hand side as you enter Shirley-Common, passing through Shirley from Croydon, also about Charlton and Coomb-Woods.

It produces its Capsules in February and March.

224



Bryum subulatum.

*Bryum capillare**Bryum argenteum*

BRYUM ARGENTEUM. SILVER BRYUM.

BRYUM Linn. Gen. Pl. CRYPTOGAMIA MUSCI.

Anthera operculata. *Calyptra* lœvis. *Filamentum* e tuberculo terminali ortum.

Raii Syn. Gen. 3. MUSCI.

BRYUM argenteum antheris pendulis, surculis cylindricis imbricatis lœvibus. Linn. Syst. Veg. p. 789. Sp. Pl. 1586. Fl. Suecic. n. 1008.

BRYUM caulinis teretibus, capsulis ovatis acuminatis pendulis. Haller Hist. 1821.

BRYUM argenteum. Scopoli Fl. Carn. n. 1310.

BRYUM pendulum julaceum argenteum et fericeum. Dill. Musc. 392. t. 50. f. 62.

MUSCUS squamosus argenteus, ericæ folio. Vaillant. Paris. 134. t. 26. f. 3.

MUSCUS minimus e viridi argenteus, capitulis oblongis cernuis. Mori. Hist. 3. p. 627. f. 15. t. 6. f. 17.

Confertim nacit, caulinis sessilibus, surculi teretes
duarum aut trium linearum.

FOLIA ovato-lanceolata, acuta, pilo terminata, qua-
druplici alterna serie disposita, tam arcte cauli
appressa, ut nonnisi per lentem distingui
possint, pilis creberrimis, sericeis, argenteis.

PEDUNCULI initio hyemis surgunt e basi caulinorum,
ab aliquot lineis ad semunciam longi,
inferne purpurei, superne pallidiores.

CAPSULÆ ovatae, nutantes, luteæ, versus setam ru-
bicundæ, quæ ab initio virides, et rectæ ante
maturitatem fuere. *Operculum* breve, obtu-
sum, aurantiacum. *Ora* ciliata, *Calyptra* e vi-
ridi fusca, quæ nonnisi in junioribus capsulis
reperitur.

Stalks growing close together and sessile, dividing into
round surculi two or three lines in length.

LEAVES ovato-lanceolate, terminated by a hair, dis-
posed in an alternate quadruple row, so closely
pressed to the stalk, as to be scarce visible
without a magnifier, the hairs exceedingly
numerous, silky, of a silver colour.

PEDUNCLES arise from the bottom of the stalks, the
beginning of winter, from a few lines to half an
inch in length, below purplish, above paler.

CAPSULES ovate, pendulous, yellowish, but near the
peduncle reddish, when young green, and up-
right. *Operculum* short, obtuse, and of an
orange colour. Mouth ciliated, *Calyptra* of a
greenish brown, and only visible in the young
capsules.

It is not possible in painting to do justice to the silvery appearance which this little moss usually puts on, and which in general obviously distinguishes it from all our other Bryums; this silvery hue it however loses in some situations and appears of a green colour, especially in moist sheltered places, where the leaves not only become greener but laxer also, and the surculi grow to a much greater length; in this state it is figured by DILLENIUS as a distinct species; the surculi vary much likewise in their shape, sometimes becoming very fine and almost thread shaped as represented at fig. 2, 3.

The Bryum argenteum produces its capsules as early as December and January, and this their early appear-
ance is one reason why they are not so often found as some others, but added to this it does not produce
fructifications so plentifully as some other Bryums, large patches of it being often found perfectly barren.

It is very common on walls and banks.

Fig. 1. to 7. represent it of its natural size in its various states, fig. 8. to 12. magnified.

BRYUM CÆSPITICUM. MATTED BRYUM.

BRYUM cæspiticium antheris pendulis, foliis lanceolatis acuminato-setaceis, pedunculis longissimis.
Linn. Syst. Vegetab. p. 799. Sp. Pl. p. 1586. Fl. Suecic. 1010.

HYPNUM foliis ovato-lanceolatis aristatis patulis, capsulis ovatis obtusis pendulis. Haller. Hist. 1790.

BRYUM pendulum ovatum cæspiticium et pilosum, seta bicolori. Dill. Musc. 396. tab. 50. f. 7.

MUSCUS capillaceus minimus, capitulo nutante, pediculo purpureo. Vaill. Paris. 134. t. 29. f. 7.

MUSCUS trichoides capitulo parvo reflexo, pediculo ima medietate rubro, summa luteo-viridi.

Morif. H. Ox. III. p. 629. f. xv. t. 6. f. xv. Raii. Syn. p. 100. n. 44.

CAULICULIS in denos cæspites congestis, lata strata
efficit, supra muros imprimis et in terra gla-
reosa, fig. 3.

SURCULI ipsi breves, et ad aliquot tantum lineas su-
per terram eminentes, fig. 1. 4. subramosi,
inferius multo tomento fusco obsiti.

FOLIA exigua, dense congesta, ovato lanceolata, pilo
incano terminata pallide e luteo viridia, feri-
cea, splendentia, sub lente in humide planta
pellucida, fig. 14. 16.

PEDUNCULI unciales, fig. 5. inferne purpureæ, su-
perne luteæ, e surculorum annotinorum ro-
sula terminali prodeunt, fig. 1. inter ramulos,
five potius surculos juniores, bulbillo instruc-
ti, fig. 2.

CAPSULA ex ovato-cylindrica, ab initio erecta, fig. 7.
tenuior, deinde sensim crassescens, pendula,
fig. 8, 9. 11. sublutea, operculo tecta papilli-
formi, miniato, nitido quo secedente ora ap-
paret ciliata, fig. 12.

CALYPTRA in junioribus erecta, gracilis, conica, pal-
lide fusca, in adultioribus rufa, inclinata,
fig. 7, 8, 9.

STALKS growing closely together, form broad turfs,
particularly on walls and gravelly situations,
fig. 3.

SURCULI themselves short, raised a few lines only
above the earth, somewhat branched, fig. 1. 4.
below covered with a brown woolly kind of
substance.

LEAVES small, closely compacted, oval pointed, ter-
minated by a grey hair, of a pale yellowish
green colour, silky, shining; under a magni-
fier in the moist plant transparent, fig. 14, 16.

PEDUNCLES about an inch in length, fig. 5, below
purple, above yellow, proceeding from the
top of the last year's surculus, fig. 1. between
the branches or rather younger surculi, fur-
nished with a small bulb, fig. 2.

CAPSULE of an oval cylindrical form, at first upright,
fig. 7. slender, afterwards becoming gradually
thicker and pendulous, fig. 8, 9, 11. of a yel-
lowish colour, covered with a small, short,
prominent red and shining operculum, which
falling off the mouth appears ciliated, fig. 12.

CALYPTRA on the young capsules upright, slender,
conical, and of a pale brown colour, in those
more advanced reddish brown, and inclined
to one side, fig. 7, 8, 9.

This species of Bryum is very commonly met with on walls, also on gravelly and sandy soils, producing its
capsules in February, March, and April; it varies much in size, in the shape of its leaves and the length of its
surculi.

HYDNUM AURISCALPIUM. FIR HYDNUM.

HYDNUM Linn. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis subtus echinatus.

Raii Syn. Gen. 1. FUNGI.

HYDNUM *auriscalpium* stipitatum, pileo dimidiato. Linn. Syst. Vegetab. p. 822. Spec. Plant. p. 1648.
Fl. Suec. 1100. Lappon 524.

ECHINUS petiolo gracili laterali, pileolo plano obscuro. Haller Hist. n. 2321.

ERINACEUS parvus hirsutus exfulvo fuscus, pileo semiorbiculari, pediculo tenuiore. Mich. Gen. 132. t. 72. f. 8.

FUNGUS erinaceus parvus in conis abietis nascens. Buxb. Cent. 1. t. 57. f. 1.

FUNGUS erinaceus parvus pediculo longiore auriscalpium referens buxei coloris. Buxb. Hall. 129. t. 829.

ERINACEUS minimus auriscalpium referens. Cels. Ups. 20.

FUNGUS erinaceus esculentus parvus, pediculo longiore, auriscalpium referens, buxei coloris, in strobilis pini eveniens. Kram. tent. 146.

Hudson Fl. Angl. ed. 2. p. 628.

Lightfoot Fl. Scot.

Rose's Elem. of Bot. app. t. 3.

Schaeffer. Fung. tab. 143.

Ex strobilis seu ramulis emortuis pini nascitur hic Fungus.

STIPES pollicaris seu bipollicaris, inferne incrassatus, sublanuginosus, superne ad apicem sensim attenuatus, pilis numerosis brevibus, rigidulis, horizontalibus scabriusculis.

From the decayed cones or small branches of the fir springs this Fungus.

STALK from one to three inches in height, thickened at bottom and somewhat woolly, from thence to the top gradually tapering and beset with numerous, short, horizontal, and somewhat rigid hairs, which give it a manifest roughness.

PILEUS magnitudine unguis indicis, plerumque dimidiatus, rotundato-reniformis, horizontalis, superne planiusculus, fasciis luteis et fuscis in orbem dispositis notatus, hirsutus, demum nigricans, inferne canescens, echinatus, fig. 1. Echini plurimi, conferti, acuminati, simplices, fig. 2.

HEAD or cap the size of the forefinger nail, in general halved, of roundish kidney-shape, horizontal, on the upper side flattish, marked with yellow and brown stripes circularly disposed, hirsute, finally becoming black, underneath of a greyish colour, and prickly, fig. 1. Prickles numerous, growing thickly together, simple, and running out to a point, fig. 2.

Some of the more ancient Botanists have given to this species of *Hydnum* the name of *auriscalpium* or ear-picker, from its resemblance to the instrument used for that purpose, but it should be observed that it is only when young or small that it bears this resemblance.

Its habitat is on the half decayed branches, and cones of the fir tree, especially the latter, most probably it is not attached to any particular species, the cones on which I found it were of the *Pinus sylvestris*.

In the time of Mr. RAY it was not known to be a native of Great-Britain, of late years it has been found by several inquisitive Botanists in various parts of the kingdom, as in Scotland by Mr. LIGHTFOOT, near Norwich by Mr. ROSE, and in a small pine wood opposite to, and by the road only, separated from Lord MANSFIELD'S house near Hampstead by Mr. DIXON, and from which wood the specimens here represented were taken.

The fifth of October 1780, I found a great number of them in the said wood in the greatest perfection, they grew in the moist part of the wood out of the cones buried under the dead leaves.

In its use it does not appear to be very important, at least immediately to us, KRAMER applies to it the epithet of *esculentus*, but of all the Fungi this is the least proper for eating, as it is not only small in quantity, but biting to the taste, and tough as leather,

To the student it affords a very good example of the genus *Hydnum*.



Hydnellum auriscalpium.

Sow. Fungi Vol 3.
p 267

AGARICUS GLUTINOSUS. SLIMY MUSHROOM.

AGARICUS Lin. Gen. Pl. FUNGI.

Fungus horizontalis, subitus lamellofus.

Raii. Syn. Gen. 1. FUNGI.

AGARICUS *glutinosus* pileo hemisphærico stramineo viscidio, lamellis horizontalibus, annulo obsoleto.

FUNGI pratenses minores, externe viscidii, albi et lutei, pedicules brevibus. Raii Syn. p. 7. 2.

STIPES plerumque solitarius, subinde multiplex, biplicaris ad palmarem, crassitie pennæ coracis, filiformis, albidus, pene solidus, tubo minimo, glutinosus.

ANNULUS paulo infra pileum obsoletus.

PILEUS uncialis, ad biunciam, stramineus, in adultis hemisphæricus, semper convexus, et glutine plus minusve obductus, pluviis madefactus magis fuscescit, et diaphanus evadit, unde striatus aliquando appetet.

LAMELLÆ plurimæ, simplices, e fusco purpurascen- tes, nebulosæ, integris circiter 20, horizontalibus, fig. 1. tribus brevioribus interpositis, fig. 2, 3. Pulverem effundunt e fusco purpurascen- tem.

Fig. 5. Frustulum lamellæ vitro auctum, exhibens Capsulas semenferas quaternas.

STALKS generally single, sometimes clustered from two to four inches in height, the thickness of a crow quill, thread-shaped, whitish, almost solid, the tube being very small, glutinous.

RING a little below the cap, scarce perceptible.

CAP from one to two inches in breadth, of a straw colour; in the full grown ones hemispherical, always convex, and more or less glutinous, wet with rain it becomes browner and transparent, so that it sometimes appears as if striated.

GILLS numerous, single, of a brownish purple colour, clouded, whole ones about twenty, horizontal, fig. 1. three shorter ones placed betwixt them, fig. 2, 3. they throw out a powder of a brownish purple colour.

Fig. 5. a small piece of the gill magnified, in which are shewn the *Capsules*, which contain the seeds placed four together.

Lithologia mihi cristas non eriget, says LINNÆUS in the preface to his mineralogy; he might with equal propriety have applied the same expressions to himself respecting the *Fungi*, as in the last edition of his *Systema Vegetabilium* we are presented with no more than twenty-four species of *Agarici Stipitati*, or Mushrooms with stalks: MICHELI, on the contrary, has given us six hundred and thirty-four; RAY, in the third edition of his *Synopsis*, has fifty-seven species, fourteen of which are added by DILLENIUS; GLEDITSCH, who has written a particular treatise on the *Fungi*, reduces the *Agarici* to thirty-two species, but informs us that there are one hundred and twenty more, involved in much obscurity; SCOPOLI describes one hundred and fourteen, and HALLER one hundred and thirty-four; Mr. HUDSON, in the last edition of his *Flora Anglicana*, enumerates forty-six, and Mr. LIGHTFOOT accurately describes twenty in his *Flora Scotica*; and yet amidst all these enumerations and descriptions, scarce any two of them are agreed about the same Fungus; of the hundred and fourteen described by SCOPOLI there are only eleven which have the names of LINNÆUS; the *procerus* of SCOPOLI is the *annulatus* of LIGHTFOOT; the *coriaceus* of LIGHTFOOT is the *pratensis* of HUDSON; while the *coriaceus* and *pratensis* of SCOPOLI differ from both theirs.

Amidst this confusion of Authors, arising partly from the intricacy of the subject, and partly from their inattention to specific characters, we shall be often obliged to be sparing in our synonyms, and occasionally find it necessary to produce a new name as in the present instance.

Although the Fungus here figured is a very common one, we are not able with absolute certainty to say that it is either in RAY, LINNÆUS, SCOPOLI, LIGHTFOOT, or HUDSON; the name of *glutinosus* is therefore given it, as it always is more or less slimy, and which sliminess is not confined to the upper part of the cap, but extends to the stalk: this character joined to the roundness of the cap, and the horizontal appearance of the gills which form a straight line from the edge of the cap to the stalk, will always readily distinguish this Mushroom.

The cap varies in size from two lines to two inches in diameter, and the stem from one to four or five in height, the usual colour of the cap is of a pale straw colour, sometimes inclined more to the yellow, and sometimes more to a dirty brown, especially when wet; it is gradual in its decay, not quickly dissolving as some do, nor drying up like others.

It most commonly grows singly, but sometimes springs up in clusters, especially on those spots where dung has been thrown.

Its place of growth is in exposed and elevated pastures, especially such as are moist; it may indeed be found in moist meadows, and sometimes in great abundance; the particular places where I have been accustomed to find it plentifully, are on Peckham-Rye, and in the pastures about the *Oak of Honour Wood*, also in the pasture one ascends, before entering Hornsey-Wood, going from Islington.

About the latter-end of October they are most plentiful, but may be found earlier as well as later.

There is nothing acrimonious or disagreeable in the taste of it, yet its appearance will not recommend it to the lovers of Mushrooms.



Agaricus glutinosus.

Icon. Fungi
Vol. 3. Pl. 248.

AGARICUS PLICATILIS. PLAITED MUSHROOM.

AGARICUS. Linn. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis, subitus lamellofus.

Raii Syn. Gen. 1. FUNGI.

AGARICUS *plicatilis* stipitatus, pileo campanulato seu plano, murino, pellucido, plicato.

AGARICUS *crenulatus* membranaceus cœruleoscens sulcatus, centro papillari, stipite exili. Muller
Fl. Dan. t. 832. f. 2.

FUNGUS perpusillus, pediculo oblongo, pileolo tenui, utrinque striato, seu flabelli in modum
plicatili. Raii Syn. p. 8. n. 24?

Batarr. Fung. Tab. 27. B. C.

STIPES solitarius, in adultis biuncialis et ultra, mag-
nitudine culmi triticei minoris, erectus, teres,
filiformis, fistulosus, laevis, albus, tener.

PILEUS cum primo erumpit nucleum nucis avellanæ
magnitudine æquat, e flavo fuscus, vix ma-
nifeste striatus, cito oblongo campanulatus
evadit, striæ subundulatæ magis luculenter
apparent, color in murinum incipit transire,
nunc adultus, forma, in campanulatum muta-
tur, mox evasura plana, uncialis seu sesqui-
uncialis, murinus, vertice plano, fusco, feu-
albido, tenellus, plicatus: cutis diaphanus,
sine carne, superne farinâ nullâ adspersus,
fastigiis plicarum subvillofis, peractâ floref-
centia margo invertitur et nigrescit.

LAMELLÆ paucæ, concolores, pulverem subtilissi-
mum e cœruleo-nigricantem effundentes.

STALKS single, in those which are full grown two
inches or more in height, the size of a small
wheat straw, upright, round, of the same
thickness throughout, hollow, smooth, white,
and tender.

CAP when it first springs up is about the size of the
kernel of a hazle nut, of a yellowish brown
colour, scarce perceptibly striated, it soon
becomes of an oblong bell-shape, the small
furrows appear more evidently, are some-
what waved, and the colour changes to grey
or mouse colour; now full grown, it becomes
more bell-shaped, and afterwards appears
flat; is from an inch to an inch and a half in
diameter, of a mouse colour, tender, plaited,
the crown flat, brown or whitish; the skin
transparent, without any flesh, at top not
sprinkled with meal, the ridges of the plaits
somewhat villous, when the fructification is
over, the edge becomes black and turns in.

GILLS few, of the same colour as the cap, throwing
out a very fine powder of a blueish-black
colour.

The Mushroom here figured in its several states is one of those, whose caps in decaying dissolve into a black liquid, these in general are of short duration, and this being of so thin and delicate a substance is particularly so. On the 12th of September, ten or twelve of these of different ages made their appearance on a grass-plot in my garden, and on the 16th no traces of them were to be seen.

Its usual place of growth is in Pastures, Meadows, and Grass-Plots, in all of which it is not unfrequent in the Months of September and October.

The Cap is so remarkably plaited, or fan-like, that we could not but prefer a name expressive of so characteristic a circumstance to MULLER's term *crenulatus*; the *Agaricus tenellus* of Mr. HUDSON approaches so near to ours from his description, that we should have considered it as the same, had not PLUKENET's figure quoted by him been very different.

200



Agaricus plicatilis.

Sow: Fungi. Vol. 3:
P. 364.

AGARICUS OSTREATUS. OYSTER MUSHROOM.

AGARICUS. Linn. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis, subitus lamellosum.

Raii Syn. Gen. 1. FUNGI.

AGARICUS *ostreatus* substipitatus, fasciculato-imbricatus, pileo cinereo obovato, margine involuto, lamellis albidis decurrentibus, basi subanastomosantibus.

AGARICUS *ostreatus*. Jacquin Fl. Austr. t. 104.

Mensibus Decembri et Januarii e truncis arborum pre-
fertim salicis nobiscum excrescunt Fungi
icone annexâ illustrati; plurimi plerumque
simil erumpunt, imbricatim congesti, diu
manent et demum exsiccantur.

STIPES: et si pileus trunco arboris ut plurimum basi
suâ adnectitur nihilominus in quibusdam spe-
ciminibus stipes seu pars stipitis magis lu-
culenter appetet, lamellis decurrentibus tec-
ta.

PILEUS magnitudine, et forma varius, sicut in icona,
in junioribus convexus, lœvis, murinus,
cærulescens, margine integro, involuto, in
scenescientibus planiusculus seu parum conca-
vus, fuscus, basi in inferioribus tomento
niveo obductâ; caro albissima, crassa, sub-
dulcis.

LAMELLÆ primum albæ, demum ex rufo-cinereæ,
plurimæ, tenues, inæquales, a lineis duabus
ad sex latæ, decurrentes, basi anastomosantes,
exsuccæ.

In the months of December and January the Fungi
illustrated by the annexed figure, grow with
us principally out of the trunks of willow
trees; they usually come forth in clusters
heap'd one on another, remain a considerable
time, and finally wither.

STALK: although the cap is for the most part con-
nected to the trunk of the tree by its base,
yet in some specimens the stalk or part of a
stalk more evidently appears, covered with
the gills which run down it.

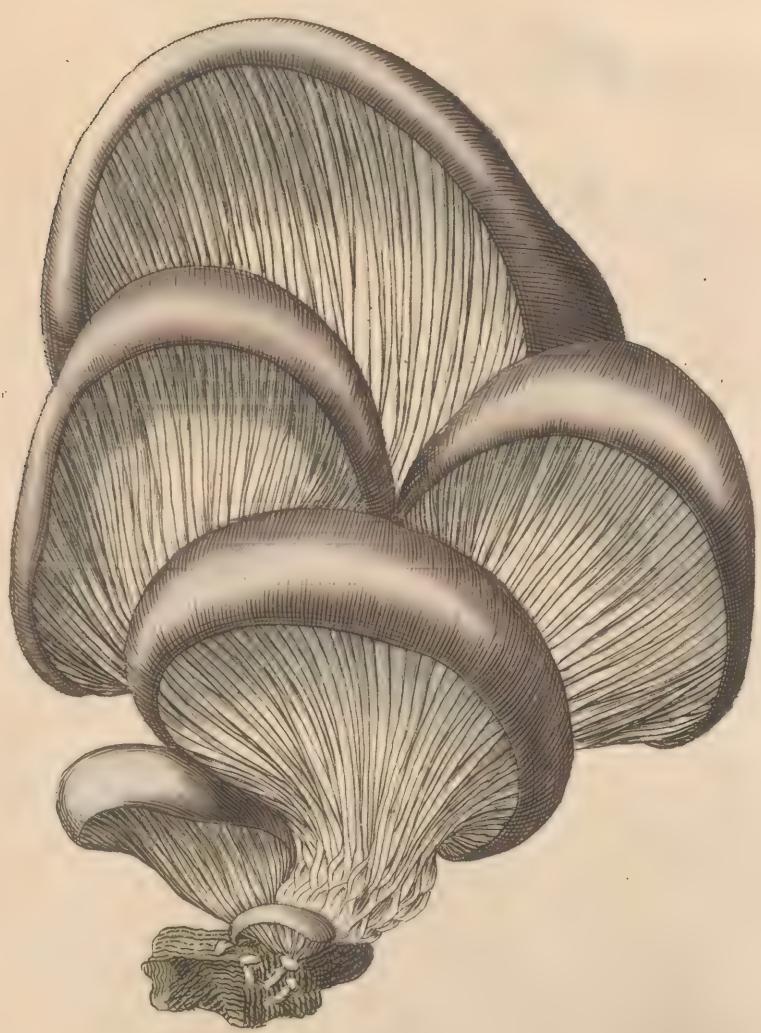
CAP variable both in size and shape, as is represented
on the plate, in the young ones convex,
smooth, mouse-coloured, blueish, the edge
entire, rolled in; in the older ones flattish,
or a little hollow, and brown; the base in
the lower ones covered with a white kind of
down; flesh very white, thick, and sweetish
to the taste.

GILLS at first white, afterwards of a reddish ash
colour, numerous, thin, unequal, from two
lines to fix in breadth, decurrent, uniting so
as to form a kind of net-work at bottom,
juiceless.

Considering the size and singularity of this Mushroom, and that is by no means uncommon, it is matter of surprize that it should have escaped the notice of our English Botanists; one reason perhaps may be assigned, viz. that it makes its appearance later in the season than most others: in December and January when the weather has been mild I have found it on the bodies of the old Willow Trees, in the neighbourhood of St. George's-Fields; Mr. DICKSON has observed it on the Elm, in St. James's-Park; and JACQUIN, from whom we borrow the name of *Ostreatus*, describes it as growing out of the Walnut.

As this species and another with a foamy stalk which we propose hereafter to figure, are almost the only ones that are found on trees so late in the year, it cannot easily be mistaken, though like most of the family it is given to sport; in general it grows in clusters of three, six, or more, of different sizes, placed one over another, bearing a distant resemblance to Oysters, when young and perfect they are of a mouse colour with a bloom on them like that of a Plum, the edge is rolled in, the gills are white, decurrent, and beautifully anastomose at bottom, but it is not in every specimen that this distinguishing character is observable; as it grows old the pileus turns up (vid. uppermost fig. on the plate) the gills become of a brownish colour, and frequently much waved, and the whole withers on the tree; the two lowermost figures on the plate represent the Fungus in its young state, and shew both sides.

To the smell it is slightly fragrant, to the taste mild, but in chewing tough.



Agaricus ostreatus.

Sow. Fungi Vol. 2. p. 216.



Phallus impudicus.

PHALLUS IMPUDICUS. STINKING MORELL.

PHALLUS Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus supra reticulatus, subtus lœvis.

Raii Syn. Gen. 1. FUNGI.

PHALLUS impudicus volvatus stipitatus, pileo cellulofo. Lin. Syst. Vegetab. p. 822. Spec. Plant. 1648. Fl. Suec. n. 1261.

PHALLUS impudicus. Scopoli Fl. Carn. n. 1650.

FUNGUS fœtidus, penis imaginem referens. C. B. Pin. 374.

PHALLUS Hollandicus. Park. 1322. Raii. Syn. p. 12. Hudson Fl. Angl. ed. 2. p. 629. Lightfoot Fl. Scot. p. 1044. Fl. Dan. t. 175. Schæffer Icon. Fung. t. 196, 197, 198.

RADIX fibrosa, fibris majusculis, teretibus, albis, paulo infra terram repentinibus, quibus hic illic accrescunt globuli albi, qui justam magnitudinem acquisiti, supra terram eminent et Volvæ dicuntur, fig. 1, 2.

VOLVA subrotunda, basi paululum compressa, lœvis, magnitudine pilæ palmariae, alba, ponderosa, tunica satis crassæ exterius tecta, cui proxime subest gelatina quædam pellucida, flavo-fusca, fig. 3, 5.

STIPES: disrupta volva, exsurgit stipes, crassitie pollicis, palmaris et ultra, paululum curvatus, teres, albus, levis, spongiosus, fistulosus, utrinque acuminatus, fig. 6.

PILEUS subconicus, stipiti laxe insidens, primo lœvis, solidus, olivaceus, lubricus, mox fœtidissimus, cellulis materie fœminiferâ externe posita adhuc repletis, quâ diffluenta aut muscis exsucta, superficies externa cellulosa appareat, interna parum rugosa, vertice truncato, albissimo, oblongo, pervio, fig. 4, 7, 8.

In the months of August, September, and October, this singular phenomenon of the Fungus tribe makes its appearance in woods, hedge-rows, and hedges, in some places abundantly, in others rarely; near London it has been found in Coombwood and Norwood, but more plentifully in a small fir wood near the Spaniard, Hampstead-Heath, before remarked for producing the *Hydnium auriscalpium*; in this wood, on the 24th of September 1780, I discovered near a dozen growing within a small space of each other, some were full-grown, others in their egg-state, risen about half way out of the ground, and, when taken up, appearing like so many small tennis balls, vid. fig. 2. several of these I carefully carried home; one, which was in its greatest perfection, my draughtsman, for the sake of more conveniently drawing, took with him to the Spaniard (a place of entertainment on the spot) but the fetor arising from it quickly pervading every part of the house, and rendering it intolerable, we were obliged to get rid of it.

On perpendicularly dividing with a sharp knife one of those I had taken home, I was not more struck with the beautiful appearance which the surface of each half exhibited, than the thick mass of pure transparent jelly, of a brownish yellow colour, deposited betwixt two membranes, immediately under the outer surface, and which enveloped the Fungus, as yet in embryo, vid. fig. 3.

On examining my Fungi in their egg-state the next morning, I had the satisfaction to observe, that in one of them, the cap of the Fungus had just broken through its integuments, and was pushing itself up through the jelly; I thought this a proper opportunity of observing how quick it was in its growth, and found, that from the time of its breaking through the outer skin (half past eight o'clock) to the time that it acquired its full height, a space intervened of about five hours, in which time it had grown three inches and three quarters; an instance of the quickness of vegetation scarce credible, and perhaps not to be equalled by any other plant.

The cap, on its first coming forth, being covered with the jelly through which it had passed, and being also of a light olive colour, but perfectly opaque, not unaptly resembled a lump of bird-lime, vid. fig. 4. this appearance it retained till eleven o'clock, when in some parts it became of a darker colour; at half past twelve the whole outer surface of the cap was changed to a very dark olive; it now began to smell very offensively, flies came into the room and settled on it; a little past one, it began to dissolve, and drop off, and the cells containing this substance about the top of it began to be visible, fig. 7. It was now placed out of doors, when the Pileus was almost immediately covered with several species of flies, mostly of the larger sort, who, instead of sticking to and perishing on it, as related by GLEDITSCH, in about two hours left the cells perfectly empty, vid. fig. 8.

The disagreeable smell arising from the *Phallus impudicus*, which alone is often sufficient to detect it, and from which it has acquired in some parts of the kingdom the name of *Stink-horns*, has usually been compared to carrion, and generally considered as the effects of its putrefaction: to me, the smell appears to be altogether *sui generis*, and not to arise from putrefaction, at least a general putrefaction of the plant; it first arises from the substance lodged in the cells on the outside of the Pileus, which constitute the generic character of the *Phallus*, and with which the seeds of this plant are doubtless incorporated; as soon as this substance begins to liquefy, the effluvia is perceptible; at this time every other part of the plant is perfectly sweet, not excepting the jelly, which, it must be allowed, afterwards acquires a disagreeable odour, apparently from its putrefaction. The flies, allured by the effluvia from the Pileus, do not settle on it to deposit their eggs, as on the *Stapelia fœtida*, or putrid meat, but merely to feed on it, and which they appear to do most deliciously, scarcely ever suffering a drop of the liquid to fall on the ground; whence this species would soon become extinct, had not provident Nature supplied it with a root, which, like the Potatoe, throws out numerous offsets.

This plant affords nourishment not only to various species of flies, but also to snails and slugs, who are extremely fond of its stem.

We may remark, that the top of the cap has sometimes two perforations, instead of one, its usual number.

ROOTS fibrous, the fibres large, round, white, creeping a little under the surface of the earth, to which grow here and there white globules or tubercles, which when full grown project above the surface of the earth, and are called Volvæ or Eggs, fig. 1, 2.

EGGS roundish, a little flattened at the base, smooth, the size of a tennis ball, white, heavy, covered with an outer coat of a moderate thickness, immediately under which lies a thick mass of transparent jelly of a yellowish brown colour, fig. 3, 5.

STALK: on the bursting of the egg the stalk rises up, and is about the thickness of the thumb, four inches and more in height, a little crooked, round, white, spongy, hollow, very light and pointed at both ends, fig. 6.

CAP somewhat conical, fitting loosely on the stalk, at first smooth, solid, of an olive colour, and slippery, soon becoming highly fetid, the cells being as yet filled with the matter containing the seed, which flowing out or being eaten by flies, the outer surface appears cellular, the inner a little wrinkled, the top as if cut off, very white, oblong, and open, fig. 4, 7, 8.

INDEX,

In which the LINNÆAN Names of the Plants contained in the First, Second, and Third Fasciculi, are arranged Alphabetically.

	<i>Fasc.</i>
10 Anthoxanthum odoratum	1
12 Aira aquatica	1
13 — præcox	3
22 Alopecurus myosuroides (agrestis Linn.)	2
23 Avena flaveolens	3
24 — elatior	3
36 Anagallis arvensis	1
37 — tenella	3
43 Æthusa Cynapium	1
51 Alfine media	1
92 Agrostemma Githago	2
106 Adonis autumnalis	2
113 Anemone nemorosa	1
211 Ajuga reptans	1
128 Antirrhinum Cymbalaria	3
129 — Elatine	1
131 — spurium	2
130 — Linaria	2
136 Arabis Thaliana	1
189 Arum maculatum	2
196 Atriplex hastata	2
197 Asplenium Scolopendrium	1
212 Agaricus ovatus	2
213 — fimetarius	2
214 — glutinosus	3
215 — plicatilis	3
216 — ostreatus	3
78 Adoxa Moschatellina	2
19 Bromus mollis	1
20 — sterilis	1
21 — hirsutus	1
79 Butomus umbellatus	2
123 Betonica officinalis	2
137 Brassica muralis	3
170 Bidens cernua	3
175 Bellis perennis	1
200 Bryum scoparium	1
201 — undulatum	1
202 — hornum	1
203 — truncatum	2
204 — viridulum	2
205 — subulatum	3
206 — argenteum	3
207 — cespitosum	3
9 Circæa lutetiana	3
32 Centunculus minimus	3
38 Convolvulus sepium	1
39 — arvensis	2
47 Conium maculatum	1
50 Chenopodium album	2
51 — viride	2
52 — polyspermum	2
53 — Bonus Henricus	3
83 Chrysosplenium oppositifolium	2
93 Cerastrum semidecandrum	2
94 — viscosum	2
95 — vulgatum	2
96 — aquaticum	1
114 Caltha palustris	1
138 Cardamine amara	3
139 — pratensis	3
171 Carduus Marianus	3
190 Carex pendula	3
26 Dipsacus pilosus	1
27 — sylvestris	3
132 Digitalis purpurea	1
133 Draba verna	1
64 Epilobium hirsutum	2
65 — villosum	2
66 — tetragonum	2
67 — angustifolium	2
68 — montanum	3
69 Erica tetralix	1

INDEX,

In which the English Names of the Plants are arranged Alphabetically.

	<i>Fasc.</i>
12 Aira water	1
113 Anemone wood	2
52 Allseed	2
104 Avens	2
125 All-heal	3
19 Brome-Grass soft	1
21 — hairy-stalk'd	2
20 — barren	1
200 Bryum broom	1
201 — curled	1
202 — swan's neck	1
203 — brown }	2
204 — green }	2
205 — awl-shaped	3
206 — silvery }	3
207 — matted }	3
156 Bird's-foot-Trefoil common	2
71 Bistort common	2
176 Butterbur	1
121 Bugle common	2
6 Brook-lime	2
191 Burnet	2
123 Betony wood	3
25 Blinks	3
141 Crane's-bill Hemlock-leav'd	1
142 — stinking or herb Robert	1
143 — dove's-foot common	2
144 — mountain	3
128 Cymbalaria ivy-leav'd	1
54 Chickweed common	1
38 Convolvulus large white	1
39 — field	2
102 Cinquefoil common	1
107 Crowfoot round-rooted	1
109 — upright meadow	1
108 — pale-leav'd	2
111 — wood	2
112 — celery-leav'd	2
189 Cuckow pint	2
177 Colt's-foot	2
90 Campion red	2
28 Cleavers common	2
92 Cockle	3
190 Carex pendulous	3
158 Claver	3
155 Clover Dutch	3
192 Cat's-tail broad-leav'd	3
193 — narrow-leav'd	3
175 Daisyl common	1
133 Draba vernal	1
116 Dead-Nettle purple	1
118 — white	2
165 Dandelion common	1
60 Dock curl'd	2
62 — sharp-pointed	3
61 — broad-leav'd	3
63 — narrow-leav'd	3
31 Devil's-bit	3
127 Eye-bright red	2
173 Erigeron purple	1
9 Enchanters-Nightshade common	3
55 Elder dwarf	3
56 Flax purging	3
79 Flowering-Rush	1
48 Fools-parsley	1
129 Fluellin sharp-pointed	1
131 — round-leav'd	3
132 Foxglove purple	1
118 Fescue-grass flore	1
147 Fumitory common	2
22 Foxtail-grass field	2
57 Fritillary common	3
195 Frog-bit	3

70	Erica cinerea	2	11	Flag yellow	3
98	Euphorbia Peplus	1	178	Fleabane common	3
99	— Helioscopia	1	179	— small	3
127	Euphrasia Odontites	1	174	Groundsel common	1
135	Erysimum Alliaria	2	83	Golden Saxifrage common	2
149	Ervum hirsutum	1	122	Ground-Ivy	2
150	— tetraspermum	1	50	Goosefoot white	2
173	Erigeron acre	1	51	— purple-jointed	2
18	Festuca fluitans	1	53	Good Henry	3
57	Fritillaria Meleagris	3	197	Hart's-tongue	1
101	Fragaria sterilis	3	47	Hemlock	1
147	Fumaria officinalis	2	69	Heath cross-leav'd	1
28	Galium Aparine	2	70	— fine-leav'd	2
104	Geum urbanum	2	35	Hottonia water	1
122	Glechoma hederacea	2	208	Hypnum proliferous	1
141	Geranium cicutarium	1	209	— silky	2
142	— robertianum	1	210	— meadow	3
143	— molle	2	42	Honeysuckle common	1
144	— pyrenaicum	3	117	Henbit	2
35	Hottonia palustris	1	58	Hyacinth English	2
43	Hedera Helix	1	168	Hawkweed long-rooted	3
58	Hyacinthus non scriptus	2	169	— small-flowered	3
160	Hypericum pulchrum	1	215	Hydnum ear-picker	3
161	— perforatum	1	100	Houseleek	3
162	— hirsutum	3	13	Hair-grafts early	3
163	— humifusum	3	170	Hemp-Agrimony Water	3
164	— Androfænum	3	126	Hooded willow-herb common	3
168	Hypochæris radicata	3	43	Ivy	1
169	— glabra	3	76	Knot-grafts common	1
195	Hydrocharis Morsus Ranæ	3	139	Ladies-smock common	3
208	Hypnum proliferum	1	138	— bitter	3
209	— fericeum	2	97	Loofestrife purple-spiked	3
210	— purum	3	96	Mousear-chickweed marsh	2
217	Hydnum auriscalpium	3	93	— least	2
11	Iris Pseudacorus	3	95	— common	2
59	Juncus campestris	2	94	— broad-leav'd	2
178	Inula dysenterica	3	114	Marsh-Marigold	1
179	— pulicaria	3	78	Moschatel tuberous	2
8	Lycopus europæus	3	157	Medick hop	2
42	Lonicera Periclymenum	3	15	Meadow-grafts hard	2
45	Lysimachia Nummularia	3	16	— smooth-stalk'd	2
56	Linum catharticum	1	17	— rough-stalk'd	2
90	Lychnis dioica	2	194	Mercury Dog's	2
91	— Flos cuctuli	1	145	Mallow common	2
97	Lythrum Salicaria	3	146	— round-leav'd	3
116	Lamium purpureum	1	213	Mushroom Egg	2
117	— amplexicaule	2	212	— pucker'd	2
118	— album	2	214	— slimy	3
156	Lotus corniculatus	2	215	— plaited	3
159	Lathyrus pratensis	3	216	— oyster	3
165	Leontodon Taraxacum	1	45	Moneywort	3
166	Lapsana communis	1	44	Mousear-scorpion-grafts	3
25	Montia fontana	3	218	Morell stinking	3
44	Myosotis scorpioides	3	166	Nipplewort	1
145	Malva sylvestris	2	40	Nightshade woody	1
146	— rotundifolia	3	41	— garden	2
157	Medicago lupulina	2	124	Nettle hedge	3
158	— arabica	3	185	Orchis Bee	1
194	Mercurialis perennis	2	187	— early spotted	2
89	Oxalis Acetosella	2	188	— meadow	3
148	Orobus tuberosus	1	196	Orach spear-leav'd	2
185	Ophrys apifera	1	88	Orpine	3
186	— ovata	3	23	Oat-grafts yellow	3
187	Orchis mascula	2	24	— tall	3
188	— Morio	3	172	Oxtongue	3
199	Osmunda spicant	2	36	Pimpernel common	1
14	Poa annua	1	37	— bog	3
15	— rigida	2	32	— bastard	3
16	— pratensis	2	91	Pink meadow	1
17	— trivialis	2	148	Pea wood	1
29	Plantago lanceolata	2	14	Poa common dwarf	1
30	— major	2	72	Perficaria spotted-leav'd	1
102	Potentilla reptans	1	73	— pale-flower'd	1
103	— Anserina	3	74	— spotted-stalk'd	1
191	Poterium Sanguisorba	2	75	— biting	1
198	Polypodium vulgare	1	77	— small creeping	1
71	Polygonum Bistorta	1	198	Polypody common	1
72	— Persicaria	1	183	Panfie wild	1
73	— pensylvanicum	1	34	Pearlwort upright	2
74	— var. caul. macul.	1	33	— procumbent	3
75	— Hydropiper	1	106	Pheasant's-eye	2
76	— aviculare	1	136	Podded Mousear	2
77	— minus	1	110	Pilewort	2
211	Polytrichum subrotundum	2	29	Plantain narrow-leav'd	2
218	Phallus impudicus	3	30	— common	2
105	Papaver Rhœas	3	211	Polytrichum dwarf	2
172	Pieris echoïdes	3	105	Poppy smooth round-headed	3
60	Rumex crispus	1	46	Periwinkle small	3

61	Rumex obtusifolium	3	59	Rush hairy field.	2
62	— acutus	3	137	Rocket stinking	3
63	— maritimus	3	140	— water	3
107	Ranunculus bulbosus	1	98	Spurge small garden	1
108	— hirsutus	2	99	— sun	1
109	— acris	1	160	St. John's-wort small upright	1
110	— Ficaria	2	161	— common	1
111	— auricomas	2	162	— hairy	3
112	— sceleratus	2	163	— trailing	3
31	Scabiosa Succisa	3	49	Scandix rough-seeded	1
33	Sagina procumbens	3	80	Saxifrage white	1
34	— erecta	2	81	— rue-leav'd	2
40	Solanum Dulcamara	1	85	Stonecrop white-flowered	1
41	— nigrum	2	86	— common yellow	1
49	Scandix Anthriscus	1	87	— thick-leav'd	3
55	Sambucus Ebulus	3	134	Shepherd's-purse	1
80	Saxifraga granulata	1	1	Speedwell procumbent garden	1
81	— tridactylites	2	2	— germander-leav'd	1
84	Stellaria Holostea	2	3	— smooth-leav'd	1
82	Saponaria officinalis	2	4	— ivy-leav'd	2
85	Sedum album	2	5	— wall	2
86	— acre	1	7	— male	3
87	— dasypodium	3	167	Sowthistle common	2
88	— Telephium	3	199	Spleenwort rough	2
100	Sempervivum tectorum	3	135	Sauce-alone	2
124	Stachys sylvatica	3	84	Stitchwort greater	2
125	— palustris	3	82	Sopewort	2
126	Scutellaria galericulata	3	101	Strawberry barren	3
140	Sisymbrium sylvestre	3	103	Silver-weed	3
167	Sonchus oleraceus	2	149	Tine-tare rough-podded	1
174	Senecio vulgaris	1	150	— smooth-podded	1
119	Thymus Acinos	1	26	Teasle small	1
120	— Serpyllum	2	27	— wild	3
134	Thlaspi Burla-pastoris	1	130	Toadflax common yellow	1
151	Trifolium ornithopodioides	2	119	Thyme Basil	1
152	— subterraneum	2	120	— wild	2
153	— fragiferum	2	152	Trefoil subterraneous	2
154	— agrarium	3	151	— bird's-foot true	2
155	— repens	3	153	— Strawberry	2
176	Tussilago Petasites	2	154	— hop	3
177	— Farfara	2	186	Twayblade	3
192	Typha major	3	171	Thistle milk	3
193	— minor	3	164	Tutsan	3
1	Veronica agrestis	1	10	Vernal-graft sweet-scented	1
2	— chamædrys	1	105	Vervain	1
3	— serpyllifolia	1	180	Violet sweet-scented	1
4	— hederifolia	2	181	— hairy	1
5	— arvensis	2	182	— Dog's	1
6	Becabunga	2	184	— Bog	3
7	— officinalis	3	159	Vetchling yellow	3
46	Vinca minor	3	89	Wood sorrel	2
115	Verbena officinalis	1	64	Willow-herb large-flowered	2
180	Viola odorata	1	65	— hoary	2
181	— hirta	1	66	— square-stalk'd	2
182	— canina	2	67	— rosebay	2
183	— tricolor	1	68	— wood	3
184	— palustris	3	8	Water-horehound	3



GENERAL INDEX

To the Plants of the First, Second, and Third Fasciculi, as arranged according to
the System of LINNÆUS.

DIANDRIA MONOGYNIA.

Plate.

- 1 Veronica agrestis
- 2 — Chamædrys
- 3 — serpyllifolia
- 4 — hederifolia
- 5 — arvensis
- 6 — Becabunga
- 7 — officinalis
- 8 Lycopus europæus
- 9 Circæa lutetiana

DIANDRIA DIGYNIA.

- 10 Anthoxanthum odoratum

TRIANDRIA MONOGYNIA.

Plate.

- 11 Iris Pseudacorus

TRIANDRIA DIGYNIA.

- 12 Aira aquatica
- 13 — præcox
- 14 Poa annua
- 15 — rigida
- 16 — pratensis
- 17 — trivalis
- 18 Festuca fluitans
- 19 Bromus mollis
- 20 — sterilis
- 21 — hirsutus

Plate.

- 22 Alopecurus myosuroides

- 23 Avena flaveolens

- 24 — elatior

TRIANDRIA TRIGYNIA.

- 25 Montia fontana

TETRANDRIA MONOGYNIA.

- 26 Dipsacus pilosus
- 27 — sylvestris
- 28 Galium Aparine
- 29 Plantago lanceolata
- 30 — major
- 31 Scabiosa succisa
- 32 Centunculus minimus

TETRANDRIA

TETRANDRIA TETRAGYNIA.

Plate.

33 *Sagina procumbens*
34 —— *erecta*

PENTANDRIA MONOGYNIA.

35 *Hottonia palustris*
36 *Anagallis arvensis*
37 —— *tenella*
38 *Convolvulus sepium*
39 —— *arvensis*
40 *Solanum Dulcamara*
41 —— *nigrum*
42 *Lonicera Periclymenum*
43 *Hedera Helix*
44 *Myosotis scorpioides palust.*
45 *Lysimachia Nummularia*
46 *Vinca minor*

PENTANDRIA DIGYNIA.

47 *Conium maculatum*
48 *Aethusa Cynapium*
49 *Scandix Anthriscus*
50 *Chenopodium album*
51 —— *viride*
52 —— *polyspermum*
53 —— *Bonus Henricus*

PENTANDRIA TRIGYNIA.

54 *Alfine media*
55 *Sambucus Ebulus*

PENTANDRIA PENTAGYNIA.

56 *Linum catharticum*

HEXANDRIA MONOGYNIA.

57 *Fritillaria Meleagris*
58 *Hyacinthus non-scriptus*
59 *Juncus campestris*

HEXANDRIA TRIGYNIA.

60 *Rumex crispus*
61 —— *obtusifolium*
62 —— *acus*
63 —— *maritimus*

OCTANDRIA MONOGYNIA.

64 *Epilobium hirsutum*
65 —— *villosum*
66 —— *tetragonum*
67 —— *angustifolium*
68 —— *montanum*
69 *Erica tetralix*
70 —— *cineraria*

OCTANDRIA DIGYNIA.

71 *Polygonum Bistorta*
72 —— *Pericaria*
73 —— *penylvanicum*
74 —— *var. caule maculato*
75 —— *Hydropiper*
76 —— *aviculare*
77 —— *minus*

OCTANDRIA TETRAGYNIA.

78 *Adoxa Moschatellina*

ENNEANDRIA HEXAGYNIA.

79 *Butomus umbellatus*

DECANDRIA DIGYNIA.

80 *Saxifraga granulata*
81 —— *tradactylites*
82 *Saponaria officinalis*
83 *Chrysosplenium oppositifolium*

DECANDRIA TRIGYNIA.

84 *Stellaria Holostea*

DECANDRIA PENTAGYNIA.

85 *Sedum album*
86 —— *acre*
87 —— *dasyphyllum*
88 —— *Telephium*
89 *Oxalis Acetosella*
90 *Lychnis dioica*
91 —— *Flos cuculi*
92 *Agrostemma Githago*
93 *Cerastrum semidecandrum*
94 —— *viscosum*
95 —— *vulgatum*
96 —— *aquaticum*

DODECANDRIA MONOGYNIA.

Plate.

97 *Lythrum Salicaria*

DODECANDRIA TRIGYNIA.

98 *Euphorbia peplus*
99 —— *Helioscopia*

DODECANDRIA DODECAGY

100 *Sempervivum tectorum*

ICOSANDRIA POLYGYNIA.

101 *Fragaria sterilis*
102 *Potentilla reptans*
103 —— *Anserina*
104 *Geum urbanum*

POLYANDRIA MONOGYNIA.

105 *Papaver Rhoeas*

POLYANDRIA POLYGYNIA.

106 *Adonis autumnalis*
107 *Ranunculus bulbosus*
108 —— *hirsutus*
109 —— *acris*
110 —— *Ficaria*
111 —— *auricomus*
112 —— *sceleratus*
113 *Anemone nemorosa*
114 *Caltha palustris*

DIDYNAMIA GYMNOSEPMIA.

115 *Verbena officinalis*
116 *Lamium purpureum*
117 —— *amplexicaule*
118 —— *album*
119 *Thymus Acinos*
120 —— *Serpillum*
121 *Ajuga reptans*
122 *Glechoma hederacea*
123 *Betonica officinalis*
124 *Stachys sylvatica*
125 —— *palustris*
126 *Scutellaria galericulata*

DIDYNAMIA ANGIOSPERMIA.

127 *Euphrasia Odontites*
128 *Antirrhinum Cymbalaria*
129 —— *Elatine*
130 —— *Linaria*
131 —— *spurium*
132 *Digitalis purpurea*

TETRADYNAMIA SILICULOSA.

133 *Draba verna*
134 *Thlaspi Bursa pastoris*

TETRADYNAMIA SILIQUOSA.

135 *Erysimum Alliaria*
136 *Arabis thaliana*
137 *Brassica muralis*
138 *Cardamine amara*
139 —— *pratincola*
140 *Sisymbrium sylvestre*

MONADELPHIA DECANDRIA.

141 *Geranium cicutarium*
142 —— *robertianum*
143 —— *molle*
144 —— *pyrenaicum*

MONADELPHIA POLYANDRIA.

145 *Malva sylvestris*
146 —— *rotundifolia*

DIADELPHIA HEXANDRIA.

147 *Fumaria officinalis*

DIADELPHIA DECANDRIA.

148 *Orobus tuberosus*
149 *Ervum hirsutum*
150 —— *tetraspermum*
151 *Trifolium ornithopodioides*
152 —— *subterraneum*
153 —— *fragiferum*
154 —— *agrarium*
155 —— *repens*

Plate.

156 *Lotus corniculatus*
157 *Medicago lupulina*
158 —— *arabica*
159 *Lathyrus pratensis*

POLYADELPHIA POLYANDRIA.

160 *Hypericum pulchrum*
161 —— *perforatum*
162 —— *hirsutum*
163 —— *humifusum*
164 —— *Androsaemum*

SYNGENESIA POLYGAMIA

ÆQUALIS.

165 *Leontodon Taraxacum*
166 *Lapsana communis*
167 *Sonchus oleraceus*
168 *Hypochaeris radicata*
169 —— *glabra*
170 *Bidens cernua*
171 *Carduus marianus*
172 *Picris echioides*

SYNGENESIA POLYGAMIA
SUPERFLUA.

173 *Erigeron acre*
174 *Senecio vulgaris*
175 *Bellis perennis*
176 *Tussilago Petasites*
177 —— *Farfara*
178 *Inula dysenterica*
179 —— *pulicaria*

SYNGENESIA MONOGAMIA.

180 *Viola odorata*
181 —— *hirta*
182 —— *canina*
183 —— *tricolor*
184 —— *palustris*

GYNANDRIA DIANDRIA.

185 *Ophrys apifera*
186 —— *ovata*
187 *Orchis mascula*
188 —— *Morio*

GYNANDRIA POLYANDRIA.

189 *Arum maculatum*

MONOECIA TRIANDRIA.

190 *Carex pendula*

MONOECIA POLYANDRIA.

191 *Poterium Sanguisorba*

192 *Typha latifolia*

193 —— *angustifolia*

DIOECIA ENNEANDRIA.

194 *Mercurialis perennis*

DIOECIA MONADELPHIA.

195 *Hydrocharis Morsus Ranæ*

POLYGAMIA MONOECIA.

196 *Atriplex hastata*

CRYPTOGAMIA FILICES.

197 *Asplenium Scolopendrium*

198 *Polypodium vulgare*

199 *Osmunda spicant*

CRYPTOGAMIA MUSCI.

200 *Bryum scoparium*

201 —— *undulatum*

202 —— *hornum*

203 —— *truncatulum*

204 —— *viridulum*

205 —— *subulatum*

206 —— *argenteum*

207 —— *cepsititium*

208 *Hypnum proliferum*

209 —— *sericeum*

210 —— *purum*

211 *Polytrichum subrotundum*

CRYPTOGAMIA FUNGI.

212 *Agaricus ovatus*

213 —— *fimetarius*

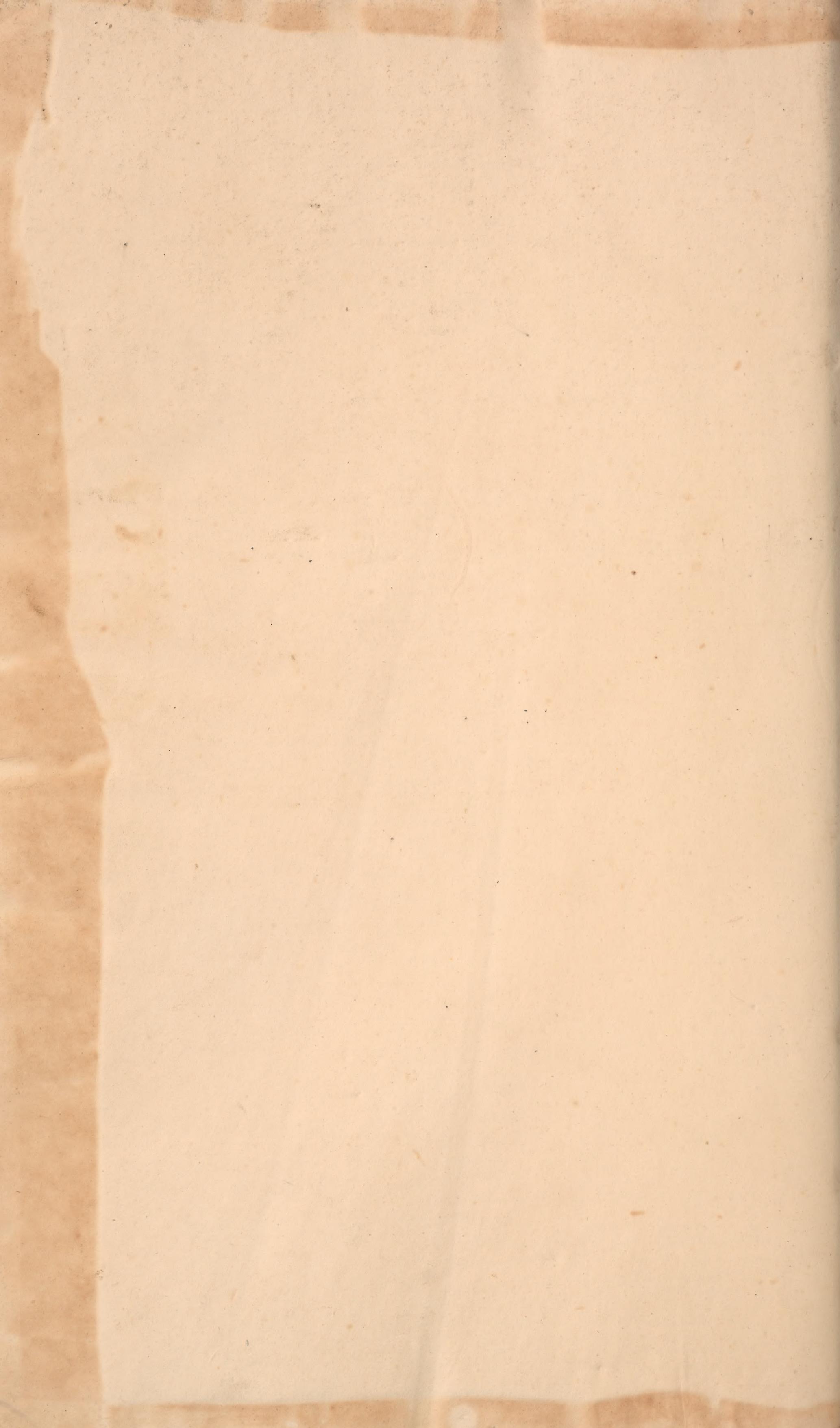
214 —— *glutinosus*

215 —— *plicatilis*

216 —— *ostreatus*

217 *Hydnium auriscalpium*

218 *Phallus impudicus*



R 9

REPRODUCTION
PROHIBITED

Med. Hist.
WZ
260
C977f
1777
v. 3

Spine repaired with a harmonizing
leather. New inside cloth hinges
in front & new hand sewed headbands.
Tooled in spirit of the original.

Sky Meadow Bindery
April 1991

